

SHEKAR ENGINEERING, PLC

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Awarded

Con 12-1-1
Doc # 14148

December 2, 2007

Mr. Marlo Gillotti
President - The Gillotti Companies
5600 Enterprise Drive
Grimes, IA 50111

RE: Concrete Supply Construction Rubble Site
1108 SE 30th Street, Des Moines, Iowa.
Landfill Permit #77-SDR-86P.

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Dear Mr. Gillotti:

Enclosed please find 2007 annual site monitoring report for the referenced site. The Iowa Department of Natural Resources (IDNR) approved Hydrologic Monitoring System Plan (HMS) and requires submittal of annual monitoring reports. I have submitted a copy of the annual monitoring report to Mr. Michael Leat of the IDNR.

Should you have any questions or need additional information, please feel free to call Mr. Chandra Shekar at 515-334-5062.

Sincerely,



Mr. Chandra Shekar, P.E.
Iowa P.E. Registration #13663

✓cc:

Mr. Michael B. Leat
IDNR Energy & Waste Management Bureau
Wallace State Office Building
Des Moines, IA 50319

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ANNUAL LANDFILL MONITORING REPORT (2007)

**CONCRETE SUPPLY AND CONSTRUCTION RUBBLE SITE
1108 SE 30TH STREET
DES MOINES, IA**

IDNR PERMIT NUMBER: 77-SDP-24-86P

SUBMITTED TO

**The Gillotti Companies
5600 Enterprise Drive
Grimes, IA 50111**

and

Solid Waste Section of the IDNR

PREPARED BY

**SHEKAR ENGINEERING, PLC
PO BOX 3625
DES MOINES, IA 50322
Phone: 515-334-5062, FAX: 515-334-5052**

Project Engineer: Mr. Chandra Shekar, P.E.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Iowa.

Signature:



Name: Mr. Chandra Shekar, P.E.

Date: 12/03/2007

Registration No.: 13663

Expiration Date: 12/31/2009

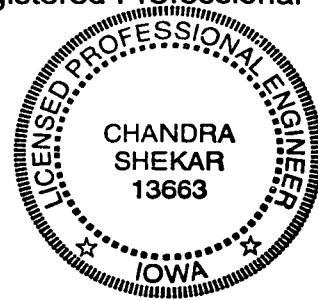




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SITE MONITORING ANNUAL REPORT - 2007
Concrete Supply Construction Rubble Site
(Landfill Permit #77-SDP-86P)
1108 SE 30th Street, Des Moines, Iowa 50137.

1.0 Introduction:

Shekar Engineering (SE) has prepared this annual report for the Concrete Supply and Construction Rubble Site in Des Moines, Iowa. The report is based upon semi-annual and annual groundwater sampling of the on-site monitoring wells and a surface water body.

2.0 Background Information

The Concrete Supply and Construction Rubble Site in Des Moines, Iowa, which used to be a construction and demolition (C & D) Landfill was closed in 1989. At present, the site does not accept any regulated material. However, to fill the low-lying areas of the site, clean dirt and broken concrete are accepted.

Geological units encountered during drilling generally consisted of approximately 5 to 23 feet of fill underlain by approximately 40 to 60 feet of well graded sands with gravels overlying gray and dark gray shales. The shales encountered at the site appear to be consistent with the regional Pennsylvanian-age, Cherokee Group shales. Groundwater is at approximately 20 to 25 feet below ground surface. Groundwater flow direction across the site is towards south.

A Hydrologic Monitoring System Plan (HMSP) was approved (6/19/96) by the Iowa Department of Natural Resource (IDNR) and required quarterly site monitoring for the first year and semi annual site monitoring for the second year and so on. Landfill Closure Permit was approved in January 2000.

As part of the monitoring, groundwater and surface water samples were collected and analyzed for Iowa Landfill Parameter e during semi-annual monitoring events (April), and for e and f during the annual monitoring event (October). The analytical results of the groundwater and surface water samples are tabulated in Tables 1 thorough 10.

3.0 Monitoring Well Maintenance and Performance Evaluation

SE evaluated water levels in the monitoring wells using the data obtained during the current annual sampling event and previous sampling events. This evaluation indicates that depth to water in monitoring wells is consistent. Measurements taken between 1997 and 2003 indicate that all wells are intact and capable of measuring the required parameters. A Table showing the monitoring well location and the respective aquifers is indicated below.

Monitoring Well Locations and the Respective Aquifers

Upgradient Wells	MW-92-1, MW-92-2, MW-92-1R
Downgradient Wells	MW-92-4, MW-92-5, MW-92-6, MW-92-7
Crossgradient Well	MW-92-3
Upper Aquifer Wells (Monitoring wells are at shallow depth)	MW-92-1, MW-92-1R, MW-92-3, MW-92-4, MW-92-6
Lower Aquifer Wells (Monitoring wells that are deep)**	MW-92-2, MW-92-5, MW-92-7

**Note: Lower Aquifer Wells (MW-92-2 and MW-92-7) were drilled a few feet in to shale layer (bedrock); and MW-92-5 was drilled 13 feet in to the bedrock. The 13 feet borehole (in bedrock) was plugged using bentonite. The screened intervals of these wells (MW-92-2, MW-92-5, & MW-92-7) do not extend in the bedrock.)

The IDNR letter dated January 4, 2000 required installation of an upgradient well to monitor for Trichloroethylene. A monitoring well (MW-92-1R) was installed to the south of MW-92-1 in March of 2000.

4.0 Groundwater Table Contour

Groundwater table contour maps (Appendix – 2) were developed using the static groundwater levels (SWLs) recorded in April and October of 2007. The groundwater flow direction in the vicinity of the site is towards south. A review of SWLs indicates groundwater mounding in the vicinity of MW-92-1R. Both April and October of 2007 were very wet. Water level in the surface water body might have been high and could have influenced the water level in MW-92-1R. Also, the backfill such as concrete rubble and other granular material might have caused temporary mounding of groundwater in the vicinity of MW-92-1R. Static groundwater levels are tabulated below.

Monitoring Well	Top of Casing Elevation	SWLs on 4/27/07	SWLs on 10/16/07	Comments
MW-92-1	796.82	780.04	779.82	Upgradient shallow well
MW-92-2	797.47	780.01	779.79	Upgradient deep well
MW-92-1R	789.92	785.38	788.24	Upgradient shallow well
MW-92-3	797.70	779.68	779.14	Crossgradient shallow well
MW-92-4	799.09	779.21	778.77	Downgradient shallow well
MW-92-5	799.52	779.29	778.84	Downgradient deep well
MW-92-6	801.38	778.79	778.73	Downgradient shallow well
MW-92-7	801.50	779.21	778.74	Downgradient deep well
L-1	799.80	Dry	Dry	Leachate piezometer
L-2	806.15	Dry	Dry	Leachate piezometer

5.0 Methods of Statistical Analysis

SE personnel collected groundwater samples from 8 monitoring wells (MW-92-1, through MW-92-7, and MW-92-1R) and a surface water body (SW-1). The samples were collected according to the protocols set forth in the HMSP and sent to a certified laboratory for analysis of the proper parameters.

Keystone Laboratories of Newton, Iowa conducted the laboratory analyses of groundwater and surface water samples. After receiving the results of the laboratory analyses, SE personnel conducted statistical analysis on the groundwater monitoring data to evaluate the impact of the landfill on the groundwater quality. The mean and standard deviation of each parameter for upgradient monitoring points were calculated as required in Subrule 567-103.2 (6) of the IAC.

After entering the laboratory results and field measurements into a spreadsheet, the following formula was used to calculate the standard deviation:

$$s = \left(\sum \frac{(x - M)^2}{n - 1} \right)^{1/2}$$

Where:

- s = sample standard deviation
- x = individual data
- M = sample mean
- n = number of data points in set

The downgradient control limits were calculated separately for the upper and lower aquifers. The results of the statistical evaluation are indicated in Tables 12 through 15.

6.0 Discussion

SE did not conduct a statistical evaluation of chemicals, which were always below the laboratory detection limits. The details of the statistical evaluation exceedences are tabulated in Table 12 through 15. Specific information included in these Tables is indicated below:

- Table 12 indicates the contaminants, which exceeded upgradient mean +2(standard deviation) in the upper aquifer (monitoring wells that are shallow).
- Table 13 indicates the contaminants, which exceeded both action level and upgradient mean +2(standard deviation) in the upper aquifer.
- Table 14 indicates the contaminants, which exceeded upgradient mean +2(standard deviation) in the lower aquifer (monitoring wells that are deep).
- Table 15 indicates surface water sampling results that exceeded action levels

6.1 Methane monitoring: SE personnel conducted methane monitoring along the landfill boundary and fill area. Table 16 indicates the monitoring results from January 2001 through April 2002. A map indicating the location of methane sampling is attached to Appendix 2. Non-detectable concentrations of methane were recorded during this period.

Shekar Engineering requested IDNR for a variance to terminate methane monitoring. The IDNR approved (May 20, 2002) Amendment #4 to the permit and allowed termination of methane monitoring.

6.2 Leachate Wells: Piezometers L-1 and L-2, which were installed to monitor leachate quality and migration have always remained dry. This is an indication that the landfill leachates are not impacting the local groundwater.

7.0 Recommendation

Shekar Engineering recommends continued site monitoring in accordance with the approved Hydrologic Monitoring System Plan.

APPENDIX - 1
TABLES

TABLE-1: GROUNDWATER ANALYTICAL RESULTS (MW-92-1)

Boring / Well Number	MCL or Action Level	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1
Date Sampled	NA	4/2/97	7/28/97	10/20/97	1/28/98	9/10/98	3/23/99	4/25/00	10/25/00
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	18.13	16.55	18.88	19.28	15.57	19.06	21.53	21.06
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	<1	<1	<1	<1	NT	<1	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	<1	<1	<1	<1	NT	<1	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	<0.4	<0.4	<0.4	<0.4	NT	<0.4	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	<1	<1	<1	<1	NT	<1	NT	NT
Benzene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	NT	<1	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	NT	<0.3	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	6.4	3	6	6.9	NT	6.3	9.7	20
Arsenic, dissolved (mg/L)	0.05	<0.001	<0.001	<0.001	<0.001	NT	<0.001	NT	NT
Barium, dissolved (mg/L)	2	0.091	0.089	0.085	0.098	NT	0.085	NT	NT
Cadmium, dissolved (mg/L)	0.005	<0.001	<0.001	<0.001	<0.001	NT	<0.001	NT	NT
Chromium, dissolved (mg/L)	0.1	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT	NT
Copper, dissolved (mg/L)	1	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT	NT
Iron, dissolved (mg/L)	0.3	<0.03	<0.03	<0.03	<0.03	<0.03	0.102	<0.03	<0.03
Lead, dissolved (mg/L)	0.015	<0.005	<0.005	<0.005	<0.005	NT	<0.005	NT	NT
Magnesium, dissolved (mg/L)	NA	46.7	46.9	43.3	45	NT	42.1	NT	NT
Mercury, dissolved (mg/L)	0.002	<0.0005	<0.0005	<0.0005	<0.0005	NT	<0.0005	NT	NT
Zinc, dissolved (mg/L)	5	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT	NT
Chemical Oxygen Demand (mg/L)	NA	<10	<10	<10	<10	<10	<10	<10	<10
Chloride (mg/L)	250	40	49	41	44	49	34	37	41
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	1.9	<1	<1
Phenols, total (mg/L)	4	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1
Total Organic Halogens (TOX) (mg/L)	none	NT	NT	NT	0.05	NT	0.07	NT	0.07

NT = Not Tested

TABLE-1 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-1)

Boring / Well Number	MCL or Action Level	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1
Date Sampled	NA	4/30/01	10/29/01	4/26/02	10/31/02	4/24/03	10/30/03	4/30/04	10/13/04
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	19.04	19.57	20.85	19.70	20.69	20.02	18.95	18.17
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	4.4	4.8	5.9	6.8	7.3	7.0	6.3	6.4
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	NT
Iron, dissolved (mg/L)	0.3	0.368	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.208
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	<10	<10	14	<10	17	<10	<10	<10
Chloride (mg/L)	250	49	38	39	53	40	32	42	44
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	<0.1	NT	<0.1	NT	<0.1	NT	<0.1
Total Organic Halogens (TOX) (mg/L)	none	NT	0.053	NT	0.107	NT	0.051	NT	0.023

NT = Not Tested

TABLE-1 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-1)

Boring / Well Number	MCL or Action Level	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1	MW-92-1
Date Sampled	NA	4/28/05	10/27/05	4/27/06	10/19/06	4/27/07	10/16/07		
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	22.70	20.44	19.32	19.95	16.78	17.00		
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT		
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT		
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT		
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT		
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT		
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT		
Trichloroethylene ($\mu\text{g/L}$)	5	10.9	8.4	8.0	5.8	3.6	3.6		
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT		
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT		
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT		
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT		
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT		
Iron, dissolved (mg/L)	0.3	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030		
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT		
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT		
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT		
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT		
Chemical Oxygen Demand (mg/L)	NA	22	<10	<10	<10	<10	<10		
Chloride (mg/L)	250	60	54	52	59	56	48		
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1		
Phenols, total (mg/L)	4	NT	<0.1	NT	<0.1	NT	<0.1		
Total Organic Halogens (TOX) (mg/L)	none	NT	0.076	NT	0.045	NT	0.017		

NT = Not Tested

TABLE-2 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-1R)

Boring / Well Number	MCL or Action Level	MW-92-1R	MW-92-1R	MW-92-1R	MW-92-1R (Duplicate)	MW-92-1R	MW-92-1R	MW-92-1R	MW-92-1R
Date Sampled	NA	4/25/00	7/31/00	10/25/00	10/25/00	1/12/01	4/30/01	10/29/01	4/26/02
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	19.54	18.53	19.96	19.96	15.17	12.34	13.23	14.42
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	<1	<1	<1	<1	<2	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	<1	<1	<1	<1	<2	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	<0.4	<0.4	<0.4	<0.4	<0.8	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	<1	<1	<1	<1	<2	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<2	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	<0.6	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<2	<1	<1	<1
Arsenic, dissolved (mg/L)	0.05	<0.001	<0.001	<0.001	<0.001	0.002	NT	NT	NT
Barium, dissolved (mg/L)	2	0.1	0.175	0.25	0.024	0.022	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	<0.03	<0.03	<0.03	<0.03	<0.03	NT	NT	NT
Copper, dissolved (mg/L)	1	<0.03	<0.03	<0.03	<0.03	<0.03	NT	NT	NT
Iron, dissolved (mg/L)	0.3	<0.03	0.066	0.066	<0.03	<0.03	0.086	0.03	<0.03
Lead, dissolved (mg/L)	0.015	<0.005	<0.005	<0.005	<0.005	<0.005	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	77.3	83.6	83.2	85	72.5	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NT	NT	NT
Zinc, dissolved (mg/L)	5	<0.03	<0.03	<0.03	<0.03	<0.03	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	12	21	<10	<10	<10	<10	<10	11
Chloride (mg/L)	250	82	132	68	65	47	68	49	67
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	NT
Total Organic Halogens (TOX) (mg/L)	none	0.06	NT	0.06	0.05	0.05	NT	0.020	NT

NT = Not Tested.

TABLE-2 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-1R)

Boring / Well Number	MCL or Action Level	MW-92-1R	MW-92-1R	MW-92-1R (Duplicate)	MW-92-1R	MW-92-1R	MW-92-1R	MW-92-1R	MW-92-1R
Date Sampled	NA	10/31/02	4/24/03	4/24/03	10/30/03	4/30/04	10/13/04	4/28/05	10/27/05
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	13.27	14.15	14.15	13.65	12.38	11.65	16.30	13.85
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<0.3	<0.3	<0.3	<0.3
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	NT
Iron, dissolved (mg/L)	0.3	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	<10	<10	<10	<10	<10	<10	<10	<10
Chloride (mg/L)	250	79	89	96	68	59	53	103	83
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	<0.1	NT	NT	<0.1	NT	<0.1	NT	<0.1
Total Organic Halogens (TOX) (mg/L)	none	0.028	NT	NT	0.026	NT	0.023	NT	0.044

NT = Not Tested.

TABLE-2 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-1R)

Boring / Well Number	MCL or Action Level	MW-92-1R	MW-92-1R	MW-92-1R (Duplicate)	MW-92-1R	MW-92-1R	MW-92-1R	MW-92-1R	MW-92-1R
Date Sampled	NA	4/27/06	10/19/06	10/19/06	4/27/07	10/16/07			
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	12.50	13.41	13.41	4.54	1.68			
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT			
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT			
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT			
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT			
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT			
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT			
Trichloroethylene ($\mu\text{g/L}$)	5	<0.3	<1.0	<1.0	<1.0	<1.0			
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT			
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT			
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT			
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT			
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT			
Iron, dissolved (mg/L)	0.3	<0.03	<0.03	<0.03	0.059	0.047			
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT			
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT			
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT			
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT			
Chemical Oxygen Demand (mg/L)	NA	<10	14	11	<10	<10			
Chloride (mg/L)	250	61	103	100	37	24			
Nitrogen, Ammonia (mg/L)	NA	<1	<1.0	<1	<1	<1			
Phenols, total (mg/L)	4	NT	<0.10	<0.1	NT	<0.1			
Total Organic Halogens (TOX) (mg/L)	none	NT	0.038	0.034	NT	0.016			

NT = Not Tested.

TABLE-3: GROUNDWATER ANALYTICAL RESULTS (MW-92-2)

Boring / Well Number	MCL or Action Level	MW-92-2	MW-92-2	Duplicate (MW-92-2)	MW-92-2	MW-92-2	MW-92-2	MW-92-2	MW-92-2
Date Sampled	NA	4/2/97	7/28/97	7/28/97	10/20/97	1/28/98	9/10/98	3/23/99	4/25/00
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	18.80	17.07	17.07	19.57	19.98	16.24	19.76	22.20
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	<1	<1	<1	<1	<1	NT	<1	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	<1	<1	<1	<1	<1	NT	<1	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	<0.4	<0.4	<0.4	<0.4	<0.4	NT	<0.4	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	<1	<1	<1	<1	<1	NT	<1	NT
Benzene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	NT	<1	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	<0.3	NT	<0.3	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	NT	<1	5.3
Arsenic, dissolved (mg/L)	0.05	<0.001	<0.001	<0.001	<0.001	0.001	NT	<0.001	NT
Barium, dissolved (mg/L)	2	0.139	0.101	0.1	0.113	0.145	NT	0.112	NT
Cadmium, dissolved (mg/L)	0.005	0.002	0.001	0.001	<0.001	<0.001	NT	<0.001	NT
Chromium, dissolved (mg/L)	0.1	<0.03	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT
Copper, dissolved (mg/L)	1	<0.03	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT
Iron, dissolved (mg/L)	0.3	8.72	0.053	0.122	2.76	9.7	8.35	8.37	0.56
Lead, dissolved (mg/L)	0.015	<0.005	<0.005	<0.005	<0.005	<0.005	NT	<0.005	NT
Magnesium, dissolved (mg/L)	NA	48.5	46.5	48.1	46.8	49	NT	41.6	NT
Mercury, dissolved (mg/L)	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NT	<0.0005	NT
Zinc, dissolved (mg/L)	5	<0.03	<0.03	<0.047	0.03	<0.03	NT	<0.03	NT
Chemical Oxygen Demand (mg/L)	NA	<10	<10	<10	<10	<10	<10	<10	<10
Chloride (mg/L)	250	79	77	76	68	82	81.2	80	27
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	NT	NT	NT	<0.1	NT	<0.1	NT
Total Organic Halogens (TOX) mg/L	none	NT	NT	NT	NT	<0.01	NT	0.01	NT

NT = Not Tested

TABLE-3 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-2)

Boring / Well Number	MCL or Action Level	MW-92-2	MW-92-2	MW-92-2	MW-92-2	MW-92-2	MW-92-2	MW-92-2	MW-92-2
Date Sampled	NA	7/31/00	10/25/00	4/30/01	10/29/01	4/26/02	10/31/02	4/24/03	10/30/03
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	20.49	21.75	19.71	20.25	21.51	20.51	21.37	20.69
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	3.8	4.6	<1	<1	<1	<1	6.9	<1
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	NT
Iron, dissolved (mg/L)	0.3	NT	<0.03	7.06	8.06	7.62	6.33	<0.03	6.29
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	NT	<10	<10	<10	<10	11	18	<10
Chloride (mg/L)	250	NT	51	68	69	62	71	36	70
Nitrogen, Ammonia (mg/L)	NA	NT	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	<0.1	NT	<0.1	NT	<0.1	NT	<0.1
Total Organic Halogens (TOX) (mg/L)	none	NT	0.03	NT	0.020	NT	0.019	NT	<0.010

NT = Not Tested

TABLE-3 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-2)

Boring / Well Number	MCL or Action Level	MW-92-2	MW-92-2	MW-92-2	MW-92-2 Duplicate	MW-92-2	MW-92-2	MW-92-2	MW-92-2
Date Sampled	NA	4/30/04	10/13/04	4/28/05	4/28/05	10/27/05	4/27/06	10/19/06	4/27/07
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	19.63	18.78	23.37	23.37	21.48	20.00	20.65	17.46
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<0.3	0.8	3.2	3.2	<0.3	7.6	6.3	6.1
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	NT
Iron, dissolved (mg/L)	0.3	7.67	7.21	4.21	3.82	7.05	<0.030	<0.03	<0.030
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	17	<10	<10	16	14	<10	10	<10
Chloride (mg/L)	250	73	72	40	39	50	46	48	49
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1.0	<1
Phenols, total (mg/L)	4	NT	<0.1	NT	NT	<0.1	NT	<0.1	NT
Total Organic Halogens (TOX) (mg/L)	none	NT	0.020	NT	NT	0.037	NT	0.040	NT

NT = Not Tested

TABLE-3 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-2)

Boring / Well Number	MCL or Action Level	MW-92-2	MW-92-2	MW-92-2	MW-92-2 Duplicate	MW-92-2	MW-92-2	MW-92-2	MW-92-2
Date Sampled	NA	10/16/07							
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	17.68							
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT							
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT							
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT							
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT							
Benzene ($\mu\text{g/L}$)	5	NT							
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT							
Trichloroethylene ($\mu\text{g/L}$)	5	4.4							
Arsenic, dissolved (mg/L)	0.05	NT							
Barium, dissolved (mg/L)	2	NT							
Cadmium, dissolved (mg/L)	0.005	NT							
Chromium, dissolved (mg/L)	0.1	NT							
Copper, dissolved (mg/L)	1	NT							
Iron, dissolved (mg/L)	0.3	<0.03							
Lead, dissolved (mg/L)	0.015	NT							
Magnesium, dissolved (mg/L)	NA	NT							
Mercury, dissolved (mg/L)	0.002	NT							
Zinc, dissolved (mg/L)	5	NT							
Chemical Oxygen Demand (mg/L)	NA	<10							
Chloride (mg/L)	250	39							
Nitrogen, Ammonia (mg/L)	NA	<1							
Phenols, total (mg/L)	4	<0.1							
Total Organic Halogens (TOX) (mg/L)	none	0.043							

NT = Not Tested

TABLE-4: GROUNDWATER ANALYTICAL RESULTS (MW-92-3)

Boring / Well Number	MCL or Action Level	MW-92-3	MW-92-3	MW-92-3	MW-92-3	MW-92-3 Duplicate	MW-92-3	MW-92-3	MW-92-3
Date Sampled	NA	4/25/00	7/31/00	10/25/00	1/12/01	1/12/01	4/30/01	10/29/01	4/26/02
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	20.10	18.03	23.45	23.66	23.66	20.00	22.04	22.89
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	<1	<1	<1	<1	<1	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	<1	<1	<1	<1	<1	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	<0.4	<0.4	<0.4	<0.4	<0.4	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	<1	<1	<1	<1	<1	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	<0.3	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	<1	<1	<1
Arsenic, dissolved (mg/L)	0.05	<0.001	<0.001	<0.001	0.001	0.001	NT	NT	NT
Barium, dissolved (mg/L)	2	0.087	0.111	0.081	0.054	0.052	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	<0.03	<0.03	<0.03	<0.03	<0.03	NT	NT	NT
Copper, dissolved (mg/L)	1	<0.03	<0.03	<0.03	<0.03	<0.03	NT	NT	NT
Iron, dissolved (mg/L)	0.3	0.026	0.026	<0.03	<0.03	0.046	<0.03	<0.03	<0.03
Lead, dissolved (mg/L)	0.015	<0.005	<0.005	<0.005	<0.005	<0.005	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	37.8	35.2	30.7	33.3	32.8	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NT	NT	NT
Zinc, dissolved (mg/L)	5	<0.03	<0.03	<0.03	<0.03	<0.03	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	<10	20	<10	<10	<10	<10	<10	11
Chloride (mg/L)	250	61	11	41	50	45	26	40	55
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	<0.1	<0.1	<0.1	<0.1	<0.1	NT	<0.1	NT
Total Organic Halogens (TOX) (mg/L)	none	0.06	NT	0.04	0.03	0.03	NT	0.017	NT

NT = Not Tested

TABLE-4 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-3)

Boring / Well Number	MCL or Action Level	MW-92-3	MW-92-3	MW-92-3	MW-92-3 Duplicate	MW-92-3	MW-92-3	MW-92-3	MW-92-3
Date Sampled	NA	10/31/02	4/24/03	10/30/03	10/30/03	4/30/04	10/13/04	4/28/05	10/27/05
Elevations - Ground Surface	NA							**	
- Top of Screen	NA								
- Static Groundwater	NA	21.89	22.54	22.29	22.29	20.77	20.27	25.35	22.38
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT		NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT		NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT		NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT		NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT		NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT		NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	0.3	<0.3		0.4
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT		NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT		NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT		NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT		NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT		NT
Iron, dissolved (mg/L)	0.3	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		<0.03
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT		NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT		NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT		NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT		NT
Chemical Oxygen Demand (mg/L)	NA	14	<10	22	<10	<10	11		12
Chloride (mg/L)	250	45	58	44	39	39	24		49
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1		<1
Phenols, total (mg/L)	4	<0.1	NT	<0.1	<0.1	NT	<0.1		<0.1
Total Organic Halogens (TOX) (mg/L)	none	0.042	NT	0.017	0.015	NT	0.013		0.099

NT = Not Tested. **Not Sampled, not enough water.

TABLE-4 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-3)

Boring / Well Number	MCL or Action Level	MW-92-3	MW-92-3	MW-92-3	MW-92-3	MW-92-3	MW-92-3	MW-92-3	MW-92-3
Date Sampled	NA	4/27/06	10/19/06	4/27/07	10/16/07				
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	20.66	22.08	18.02	18.56				
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT				
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT				
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT				
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT				
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT				
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT				
Trichloroethylene ($\mu\text{g/L}$)	5	0.3	<0.1	<1	<1.0				
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT				
Barium, dissolved (mg/L)	2	NT	NT	NT	NT				
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT				
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT				
Copper, dissolved (mg/L)	1	NT	NT	NT	NT				
Iron, dissolved (mg/L)	0.3	<0.03	0.055	<0.03	<0.03				
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT				
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT				
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT				
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT				
Chemical Oxygen Demand (mg/L)	NA	<10	<10	<10	<10				
Chloride (mg/L)	250	49	20	29	25				
Nitrogen, Ammonia (mg/L)	NA	<1	<1.0	<1	<1				
Phenols, total (mg/L)	4	NT	<0.10	NT	<0.1				
Total Organic Halogens (TOX) (mg/L)	none	NT	0.014	NT	0.020				

NT = Not Tested. **Not Sampled, not enough water.

TABLE-5: GROUNDWATER ANALYTICAL RESULTS (MW-92-4)

Boring / Well Number	MCL or Action Level	MW-92-4	MW-92-4	MW-92-4	MW-92-4	Mw-92-4	MW-92-4	MW-92-4 (Duplicate)	MW-92-4
Date Sampled	NA	4/2/97	7/28/97	10/20/97	1/28/98	9/10/98	3/23/99	3/23/99	4/25/00
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	21.28	20.31	23.30	23.47	20.24	23.00	23.00	25.73
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	<1	<1	<1	<1	NT	<1	<1	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	<1	<1	<1	<1	NT	<1	<1	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	<0.4	<0.4	<0.4	<0.4	NT	<0.4	<0.4	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	<1	<1	<1	<1	NT	<1	<1	NT
Benzene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	NT	<1	<1	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	NT	<0.3	<0.3	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	NT	<1	<1	<1
Arsenic, dissolved (mg/L)	0.05	<0.001	<0.001	<0.001	0.001	NT	<0.001	<0.001	NT
Barium, dissolved (mg/L)	2	0.042	0.035	0.037	0.04	NT	0.05	0.053	NT
Cadmium, dissolved (mg/L)	0.005	<0.001	<0.001	<0.001	<0.001	NT	<0.001	<0.001	NT
Chromium, dissolved (mg/L)	0.1	<0.03	<0.03	<0.03	<0.03	NT	<0.03	<0.03	NT
Copper, dissolved (mg/L)	1	<0.03	<0.03	<0.03	<0.03	NT	<0.03	<0.03	NT
Iron, dissolved (mg/L)	0.3	<0.03	<0.03	0.046	0.072	0.317	<0.03	<0.03	0.106
Lead, dissolved (mg/L)	0.015	<0.005	<0.005	<0.005	<0.005	NT	<0.005	<0.005	NT
Magnesium, dissolved (mg/L)	NA	34.4	31.9	31.5	29	NT	25.7	25.7	NT
Mercury, dissolved (mg/L)	0.002	<0.0005	<0.0005	<0.0005	<0.0005	NT	<0.0005	<0.0005	NT
Zinc, dissolved (mg/L)	5	0.032	0.046	<0.03	<0.03	NT	<0.03	<0.03	NT
Chemical Oxygen Demand (mg/L)	NA	14	<10	<10	23	14	<10	<10	<10
Chloride (mg/L)	250	53	47	58	80	80.1	52	48	40
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	NT	NT	<0.1	NT	<0.1	<0.1	NT
Total Organic Halogens (TOX) (mg/L)	none	NT	NT	NT	0.06	NT	0.11	0.06	NT

NT = Not Tested

TABLE-5 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-4)

Boring / Well Number	MCL or Action Level	MW-92-4	MW-92-4	MW-92-4	MW-92-4	Mw-92-4	MW-92-4	MW-92-4	MW-92-4
Date Sampled	NA	10/25/00	4/30/01	10/29/01	4/26/02	10/31/02	4/24/03	10/30/03	4/30/04
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	25.32	21.70	23.93	24.76	23.80	24.32	24.13	22.61
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	<1	<1	<0.3
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	NT
Iron, dissolved (mg/L)	0.3	<0.03	0.054	0.242	0.049	<0.03	<0.03	<0.03	0.041
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	<10	<10	<10	<10	20	24	24	15
Chloride (mg/L)	250	58	49	63	75	102	64	117	61
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	NT
Total Organic Halogens (TOX) (mg/L)	none	0.07	NT	<0.01	NT	0.024	NT	<0.05	NT

NT = Not Tested

TABLE-5 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-4)

Boring / Well Number	MCL or Action Level	MW-92-4	MW-92-4	MW-92-4	MW-92-4	MW-92-4	MW-92-4	MW-92-4	MW-92-4
Date Sampled	NA	10/13/04	4/28/05	10/27/05	4/27/06	10/19/06	4/27/07	10/16/07	
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	22.10	27.31	24.22	22.21	23.58	19.88	20.32	
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	
Trichloroethylene ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	<1.0	<1.0	<1.0	
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	
Iron, dissolved (mg/L)	0.3	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	
Chemical Oxygen Demand (mg/L)	NA	<10	<10	<10	<10	<10	<10	<10	
Chloride (mg/L)	250	111	55	106	84	117	61	61	
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	
Phenols, total (mg/L)	4	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	
Total Organic Halogens (TOX) (mg/L)	none	0.040	NT	0.049	NT	0.047	NT	<0.010	

NT = Not Tested

TABLE-6: GROUNDWATER ANALYTICAL RESULTS (MW-92-5)

Boring / Well Number	MCL or Action Level	MW-92-5	MW-92-5	MW-92-5	Duplicate MW-92-5	MW-92-5	MW-92-5	MW-92-5	MW-92-5
Date Sampled	NA	4/2/97	7/28/97	10/20/97	10/20/97	1/28/98	9/10/98	3/23/99	4/25/00
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	21.48	20.45	23.40	23.40	23.68	20.46	23.17	25.96
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	<1	<1	<1	<1	<1	NT	<1	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	<1	<1	<1	<1	<1	NT	<1	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	<0.4	<0.4	<0.4	<0.4	<0.4	NT	<0.4	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	<1	<1	<1	<1	<1	NT	<1	NT
Benzene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	NT	<1	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	<0.3	NT	<0.3	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	NT	<1	<1
Arsenic, dissolved (mg/L)	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001	NT
Barium, dissolved (mg/L)	2	0.09	0.073	0.09	0.09	0.104	NT	0.19	NT
Cadmium, dissolved (mg/L)	0.005	<0.001	0.002	<0.001	<0.001	<0.001	NT	<0.001	NT
Chromium, dissolved (mg/L)	0.1	<0.03	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT
Copper, dissolved (mg/L)	1	<0.03	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT
Iron, dissolved (mg/L)	0.3	8.14	<0.03	6.65	6.54	9.06	8.5	7.86	3.2
Lead, dissolved (mg/L)	0.015	<0.005	<0.005	<0.005	<0.005	<0.005	NT	<0.005	NT
Magnesium, dissolved (mg/L)	NA	49	47.6	47.6	46.8	50	NT	47.4	NT
Mercury, dissolved (mg/L)	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NT	<0.0005	NT
Zinc, dissolved (mg/L)	5	<0.03	0.083	<0.03	0.032	<0.03	NT	<0.03	NT
Chemical Oxygen Demand (mg/L)	NA	<10	<10	<10	<10	<10	<10	<10	<10
Chloride (mg/L)	250	69	75	78	78	85	75	64	58
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	NT	NT	NT	<0.1	NT	<0.1	NT
Total Organic Halogens (TOX) (mg/L)	none	NT	NT	NT	NT	<0.01	NT	0.02	NT

NT = Not Tested

TABLE-6 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-5)

Boring / Well Number	MCL or Action Level	MW-92-5	MW-92-5	MW-92-5	MW-92-5	MW-92-5	MW-92-5	MW-92-5	MW-92-5
Date Sampled	NA	10/25/00	4/30/01	10/29/01	4/26/02	10/31/02	4/24/03	10/30/03	4/30/04
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	25.55	21.94	24.18	25.00	24.03	24.63	24.39	22.79
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	<1	<1	<0.3
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	NT
Iron, dissolved (mg/L)	0.3	7.32	7.62	7.72	7.13	3.10	0.824	<0.03	5.95
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	<10	<10	<10	<10	11	<10	<10	16
Chloride (mg/L)	250	63	68	74	61	69	71	66	68
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	NT
Total Organic Halogens (TOX) (mg/L)	none	0.02	NT	<0.010	NT	0.021	NT	0.108	NT

NT = Not Tested

TABLE-6 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-5)

Boring / Well Number	MCL or Action Level	MW-92-5	MW-92-5	MW-92-5	MW-92-5	MW-92-5	MW-92-5	MW-92-5	MW-92-5 Duplicate
Date Sampled	NA	10/13/04	4/28/05	10/27/05	4/27/06	10/19/06	4/27/07	10/16/07	10/16/07
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	22.34	27.36	24.48	22.70	24.24	20.23	20.68	20.68
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	<1.0	<1.0	<1.0	<1.0
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	NT
Iron, dissolved (mg/L)	0.3	<0.03	5.78	6.07	0.049	<0.03	<0.03	0.164	0.147
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	<10	15	16	<10	<10	<10	<10	<10
Chloride (mg/L)	250	68	56	52	57	56	37	54	55
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	<0.1
Total Organic Halogens (TOX) (mg/L)	none	0.019	NT	0.041	NT	0.019	NT	0.014	<0.010

NT = Not Tested

TABLE-7: GROUNDWATER ANALYTICAL DATA (MW-92-6)

Boring / Well Number	MCL or Action Level	MW-92-6	MW-92-6	MW-92-6	MW-92-6	MW-92-6	MW-92-6	MW-92-6	MW-92-6
Date Sampled	NA	4/2/97	7/28/97	10/20/97	1/28/98	9/10/98	3/23/99	4/25/00	10/25/00
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	20.22	19.12	21.05	22.30	17.61	21.74	27.96	27.47
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	<1	<1	<1	<1	NT	<1	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	<1	<1	<1	<1	NT	<1	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	<0.4	<0.4	<0.4	<0.4	NT	<0.4	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	<1	<1	<1	<1	NT	<1	NT	NT
Benzene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	NT	<1	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	NT	<0.3	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	NT	<1	<1	<1
Arsenic, dissolved (mg/L)	0.05	0.001	0.009	0.014	0.005	NT	<0.001	NT	NT
Barium, dissolved (mg/L)	2	0.075	0.034	0.03	0.069	NT	0.098	NT	NT
Cadmium, dissolved (mg/L)	0.005	<0.001	<0.001	<0.001	<0.001	NT	<0.001	NT	NT
Chromium, dissolved (mg/L)	0.1	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT	NT
Copper, dissolved (mg/L)	1	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT	NT
Iron, dissolved (mg/L)	0.3	<0.03	0.179	0.235	0.113	4.12	<0.03	0.051	0.358
Lead, dissolved (mg/L)	0.015	<0.005	<0.005	<0.005	<0.005	NT	<0.005	NT	NT
Magnesium, dissolved (mg/L)	NA	30.7	14	2.23	7.3	NT	27.9	NT	NT
Mercury, dissolved (mg/L)	0.002	<0.0005	<0.0005	<0.0005	<0.0005	NT	<0.0005	NT	NT
Zinc, dissolved (mg/L)	5	<0.03	0.031	<0.03	<0.03	NT	<0.03	NT	NT
Chemical Oxygen Demand (mg/L)	NA	15	<10	36	26	<10	19.4	<10	22
Chloride (mg/L)	250	91	88	155	142	54	100	120	119
Nitrogen, Ammonia (mg/L)	NA	<1	<1	3.2	1.1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1
Total Organic Halogens (TOX) (mg/L)	none	NT	NT	NT	0.02	NT	<0.01	NT	0.04

NT = Not Tested

TABLE-7 Continued: GROUNDWATER ANALYTICAL DATA (MW-92-6)

Boring / Well Number	MCL or Action Level	MW-92-6	MW-92-6	MW-92-6	MW-92-6	MW-92-6 Duplicate	MW-92-6	MW-92-6	MW-92-6
Date Sampled	NA	4/30/01	10/29/01	4/26/02	10/31/02	10/31/02	4/24/03	10/30/03	4/30/04
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	23.90	27.32	26.94	25.96	25.96	26.54	26.31	24.65
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	<1	<1	<0.3
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	NT
Iron, dissolved (mg/L)	0.3	0.247	0.069	0.154	0.199	0.159	0.933	0.075	0.053
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	12	<10	15	14	21	15	14	19
Chloride (mg/L)	250	135	117	110	126	127	129	113	115
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	<0.1	NT	<0.1	<0.1	NT	<0.1	NT
Total Organic Halogens (TOX) (mg/L)	none	NT	<0.01	NT	0.023	0.033	NT	<0.01	NT

NT = Not Tested

TABLE-7 Continued: GROUNDWATER ANALYTICAL DATA (MW-92-6)

Boring / Well Number	MCL or Action Level	MW-92-6	MW-92-6	MW-92-6	MW-92-6	MW-92-6	MW-92-6	MW-92-6	MW-92-6
Date Sampled	NA	10/13/04	4/28/05	10/27/05	4/27/06	10/19/06	4/27/07	10/16/07	
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	24.29	29.15	26.37	24.62	26.13	22.59	22.65	
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	
Trichloroethylene ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	<1	<1.0	<1	
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	
Iron, dissolved (mg/L)	0.3	0.068	0.043	0.232	0.429	0.135	0.044	0.140	
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	
Chemical Oxygen Demand (mg/L)	NA	13	23	16	<10	18	<10	<10	
Chloride (mg/L)	250	123	126	103	120	119	50	110	
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	
Phenols, total (mg/L)	4	<0.1	NT	<0.1	NT	<0.1	NT	<0.1	
Total Organic Halogens (TOX) (mg/L)	none	0.042	NT	0.052	NT	0.031	NT	<0.010	

NT = Not Tested

TABLE-8: GROUNDWATER ANALYTICAL RESULTS (MW-92-7)

Boring / Well Number	MCL or Action Level	MW-92-7	Duplicate MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7 (duplicate)	MW-92-7	MW-92-7
Date Sampled	NA	4/2/97	4/2/97	7/28/97	10/20/97	1/28/98	1/28/98	9/10/98	3/23/99
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	22.2	22.2	19.20	22.15	22.36	22.36	19.16	21.92
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	<1	<1	<1	<1	<1	<1	NT	<1
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	<1	<1	<1	<1	<1	<1	NT	<1
1,2-Dichloroethane ($\mu\text{g/L}$)	5	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	NT	<0.4
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	<1	<1	<1	<1	<1	<1	NT	<1
Benzene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	<1	NT	<1
Carbon Tetrachloride ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	NT	<0.3
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	<1	NT	<1
Arsenic, dissolved (mg/L)	0.05	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	NT	<0.001
Barium, dissolved (mg/L)	2	0.15	0.149	0.088	0.12	0.163	0.167	NT	0.164
Cadmium, dissolved (mg/L)	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NT	<0.001
Chromium, dissolved (mg/L)	0.1	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NT	<0.03
Copper, dissolved (mg/L)	1	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NT	<0.03
Iron, dissolved (mg/L)	0.3	7.51	7.54	0.036	0.059	8.11	8.27	4.12	6.52
Lead, dissolved (mg/L)	0.015	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NT	<0.005
Magnesium, dissolved (mg/L)	NA	57	56.8	32.5	43.8	60	61	NT	55.7
Mercury, dissolved (mg/L)	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NT	<0.0005
Zinc, dissolved (mg/L)	5	<0.03	0.03	0.072	<0.03	<0.03	<0.03	NT	<0.03
Chemical Oxygen Demand (mg/L)	NA	19	18	<10	<10	<10	<10	<10	<10
Chloride (mg/L)	250	51	51	98	72	21	50	54	57
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	NT	NT	NT	<0.1	<0.1	NT	<0.1
Total Organic Halogens (TOX) (mg/L)	none	NT	NT	NT	NT	0.02	0.01	NT	0.03

NT = Not Tested

TABLE-8 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-7)

Boring / Well Number	MCL or Action Level	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7
Date Sampled	NA	4/25/00	10/25/00	4/30/01	10/29/01	4/26/02	10/31/02	4/24/03	10/30/03
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	28.15	27.66	24.00	26.28	27.10	26.10	26.70	26.49
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	<1	<1	<1
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	NT
Iron, dissolved (mg/L)	0.3	3.23	6.82	7.24	8.21	6.33	5.24	6.24	5.96
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	<10	<10	<10	14	11	14	25	12
Chloride (mg/L)	250	41	46	39	52	52	58	58	51
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	<0.1	NT	<0.1	NT	<0.1	NT	<0.1
Total Organic Halogens (TOX) (mg/L)	none	NT	0.01	NT	0.016	NT	0.022	NT	0.023

NT = Not Tested

TABLE-8 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-7)

Boring / Well Number	MCL or Action Level	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7 Duplicate
Date Sampled	NA	4/30/04	10/13/04	4/28/05	10/27/05	4/27/06	10/19/06	4/27/07	4/27/07
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	24.87	24.43	29.28	26.51	24.75	26.30	22.29	22.29
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	<0.3	<1	<1	<1
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	NT
Iron, dissolved (mg/L)	0.3	1.25	6.33	5.05	5.50	6.51	6.54	5.54	5.57
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	20	<10	28	11	<10	17	<10	<10
Chloride (mg/L)	250	53	49	61	55	58	56	63	64
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	<0.1	NT	<0.1	NT	<0.1	NT	NT
Total Organic Halogens (TOX) (mg/L)	none	NT	0.022	NT	0.041	NT	0.019	NT	NT

NT = Not Tested

TABLE-8 Continued: GROUNDWATER ANALYTICAL RESULTS (MW-92-7)

Boring / Well Number	MCL or Action Level	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7	MW-92-7
Date Sampled	NA	10/16/07							
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA	22.76							
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT							
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT							
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT							
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT							
Benzene ($\mu\text{g/L}$)	5	NT							
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT							
Trichloroethylene ($\mu\text{g/L}$)	5	<1							
Arsenic, dissolved (mg/L)	0.05	NT							
Barium, dissolved (mg/L)	2	NT							
Cadmium, dissolved (mg/L)	0.005	NT							
Chromium, dissolved (mg/L)	0.1	NT							
Copper, dissolved (mg/L)	1	NT							
Iron, dissolved (mg/L)	0.3	0.582							
Lead, dissolved (mg/L)	0.015	NT							
Magnesium, dissolved (mg/L)	NA	NT							
Mercury, dissolved (mg/L)	0.002	NT							
Zinc, dissolved (mg/L)	5	NT							
Chemical Oxygen Demand (mg/L)	NA	<10							
Chloride (mg/L)	250	61							
Nitrogen, Ammonia (mg/L)	NA	<1							
Phenols, total (mg/L)	4	<0.1							
Total Organic Halogens (TOX) (mg/L)	none	0.019							

NT = Not Tested

TABLE-9: GROUNDWATER ANALYTICAL RESULTS (SURFACE WATER BODY)

Boring / Well Number	MCL or Action Level	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1
Date Sampled	NA	4/2/97	7/28/97	10/20/97	1/28/98	9/10/98	3/23/99	4/25/00	10/25/00
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA								
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	<1	<1	<1	<1	NT	<1	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	<1	<1	<1	<1	NT	<1	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	<0.4	<0.4	<0.4	<0.4	NT	<0.4	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	<1	<1	<1	<1	NT	<1	NT	NT
Benzene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	NT	<1	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	NT	<0.3	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	NT	<1	<1	<1
Arsenic, dissolved (mg/L)	0.05	0.0013	0.002	0.0029	0.003	NT	<0.001	NT	NT
Barium, dissolved (mg/L)	2	0.11	0.05	0.099	0.076	NT	0.048	NT	NT
Cadmium, dissolved (mg/L)	0.005	<0.001	<0.001	<0.001	<0.001	NT	0.004	NT	NT
Chromium, dissolved (mg/L)	0.1	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT	NT
Copper, dissolved (mg/L)	1	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT	NT
Iron, dissolved (mg/L)	0.3	0.033	0.035	<0.03	<0.035	<0.03	0.052	<0.03	<0.03
Lead, dissolved (mg/L)	0.015	<0.005	<0.005	<0.005	<0.005	NT	<0.005	NT	NT
Magnesium, dissolved (mg/L)	NA	0.68	4	0.25	0.3	NT	2.06	NT	NT
Mercury, dissolved (mg/L)	0.002	<0.0005	<0.0005	<0.0005	<0.0005	NT	<0.0005	NT	NT
Zinc, dissolved (mg/L)	5	<0.03	0.031	0.033	<0.03	NT	<0.03	NT	NT
Chemical Oxygen Demand (mg/L)	NA	27	21	11	27	<10	10.5	<10	18
Chloride (mg/L)	250	54	52	51	56	47.5	51	46	41
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1
Total Organic Halogens (TOX) (mg/L)	none	NT	NT	NT	0.02	NT	0.02	NT	0.02

NT = Not Tested

TABLE-9: GROUNDWATER ANALYTICAL RESULTS (SURFACE WATER BODY)

Boring / Well Number	MCL or Action Level	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1
Date Sampled	NA	4/2/97	7/28/97	10/20/97	1/28/98	9/10/98	3/23/99	4/25/00	10/25/00
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA								
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	<1	<1	<1	<1	NT	<1	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	<1	<1	<1	<1	NT	<1	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	<0.4	<0.4	<0.4	<0.4	NT	<0.4	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	<1	<1	<1	<1	NT	<1	NT	NT
Benzene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	NT	<1	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<0.3	NT	<0.3	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	NT	<1	<1	<1
Arsenic, dissolved (mg/L)	0.05	0.0013	0.002	0.0029	0.003	NT	<0.001	NT	NT
Barium, dissolved (mg/L)	2	0.11	0.05	0.099	0.076	NT	0.048	NT	NT
Cadmium, dissolved (mg/L)	0.005	<0.001	<0.001	<0.001	<0.001	NT	0.004	NT	NT
Chromium, dissolved (mg/L)	0.1	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT	NT
Copper, dissolved (mg/L)	1	<0.03	<0.03	<0.03	<0.03	NT	<0.03	NT	NT
Iron, dissolved (mg/L)	0.3	0.033	0.035	<0.03	<0.035	<0.03	0.052	<0.03	<0.03
Lead, dissolved (mg/L)	0.015	<0.005	<0.005	<0.005	<0.005	NT	<0.005	NT	NT
Magnesium, dissolved (mg/L)	NA	0.68	4	0.25	0.3	NT	2.06	NT	NT
Mercury, dissolved (mg/L)	0.002	<0.0005	<0.0005	<0.0005	<0.0005	NT	<0.0005	NT	NT
Zinc, dissolved (mg/L)	5	<0.03	0.031	0.033	<0.03	NT	<0.03	NT	NT
Chemical Oxygen Demand (mg/L)	NA	27	21	11	27	<10	10.5	<10	18
Chloride (mg/L)	250	54	52	51	56	47.5	51	46	41
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	NT	NT	<0.1	NT	<0.1	NT	<0.1
Total Organic Halogens (TOX) (mg/L)	none	NT	NT	NT	0.02	NT	0.02	NT	0.02

NT = Not Tested

TABLE-9 Continued: GROUNDWATER ANALYTICAL RESULTS (SURFACE WATER BODY)

Boring / Well Number	MCL or Action Level	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1
Date Sampled	NA	4/30/01	10/29/01	4/26/02	10/31/02	4/24/03	10/30/03	4/30/04	10/13/04
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA								
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT	NT	NT
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT	NT	NT
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT	NT	NT
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1	<1	<1	<1	<0.3	<0.3
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT	NT	NT
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT	NT	NT
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT	NT	NT
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT	NT	NT
Iron, dissolved (mg/L)	0.3	<0.03	<0.03	<0.03	0.032	<0.03	<0.03	<0.03	<0.03
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT	NT	NT
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT	NT	NT
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT	NT	NT
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT	NT	NT
Chemical Oxygen Demand (mg/L)	NA	<10	<10	11	23	29	15	26	<10
Chloride (mg/L)	250	<10	48	44	45	51	47	49	49
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1	<1	<1
Phenols, total (mg/L)	4	NT	<0.1	NT	<0.1	NT	<0.1	NT	<0.1
Total Organic Halogens (TOX) (mg/L)	none	NT	<0.010	NT	0.015	NT	<0.01	NT	<0.01

NT = Not Tested

TABLE-9 Continued: GROUNDWATER ANALYTICAL RESULTS (SURFACE WATER BODY)

Boring / Well Number	MCL or Action Level	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1
Date Sampled	NA	4/28/05	10/27/05	4/27/06	10/19/06	4/27/07	10/16/07		
Elevations - Ground Surface	NA								
- Top of Screen	NA								
- Static Groundwater	NA								
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	NT	NT	NT	NT	NT	NT		
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	NT	NT	NT	NT	NT	NT		
1,2-Dichloroethane ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT		
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	NT	NT	NT	NT	NT	NT		
Benzene ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT		
Carbon Tetrachloride ($\mu\text{g/L}$)	5	NT	NT	NT	NT	NT	NT		
Trichloroethylene ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3	<1	<1	<1		
Arsenic, dissolved (mg/L)	0.05	NT	NT	NT	NT	NT	NT		
Barium, dissolved (mg/L)	2	NT	NT	NT	NT	NT	NT		
Cadmium, dissolved (mg/L)	0.005	NT	NT	NT	NT	NT	NT		
Chromium, dissolved (mg/L)	0.1	NT	NT	NT	NT	NT	NT		
Copper, dissolved (mg/L)	1	NT	NT	NT	NT	NT	NT		
Iron, dissolved (mg/L)	0.3	0.104	0.085	0.083	0.378	0.087	0.105		
Lead, dissolved (mg/L)	0.015	NT	NT	NT	NT	NT	NT		
Magnesium, dissolved (mg/L)	NA	NT	NT	NT	NT	NT	NT		
Mercury, dissolved (mg/L)	0.002	NT	NT	NT	NT	NT	NT		
Zinc, dissolved (mg/L)	5	NT	NT	NT	NT	NT	NT		
Chemical Oxygen Demand (mg/L)	NA	<10	16	10	33	<10	<10		
Chloride (mg/L)	250	61	64	81	68	54	43		
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1	<1	<1	<1		
Phenols, total (mg/L)	4	NT	<0.1	NT	<0.1	NT	<0.1		
Total Organic Halogens (TOX) (mg/L)	none	NT	0.026	NT	0.015	NT	0.014		

NT = Not Tested

TABLE-10: GROUNDWATER ANALYTICAL RESULTS (TRIP BLANK)

Boring / Well Number	MCL or Action Level	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Date Sampled	NA	4/2/97	7/28/97	10/20/97	1/28/98	9/10/98	3/23/99	4/25/00	10/25/00
Elevations - Ground Surface	NA				Not Collected		Not Collected		Not Collected
- Top of Screen	NA								
- Static Groundwater	NA								
1,1,1-Trichloroethane ($\mu\text{g/L}$)	200	<1	<1	<1		NT		<1	
1,1-Dichloroethane ($\mu\text{g/L}$)	NA	<1	<1	<1		NT		<1	
1,2-Dichloroethane ($\mu\text{g/L}$)	5	<0.4	<0.4	<0.4		NT		<0.4	
1,4-Dichlorobenzene ($\mu\text{g/L}$)	600	<1	<1	<1		NT		<1	
Benzene ($\mu\text{g/L}$)	5	<1	<1	<1		NT		<1	
Carbon Tetrachloride ($\mu\text{g/L}$)	5	<0.3	<0.3	<0.3		NT		<0.3	
Trichloroethylene ($\mu\text{g/L}$)	5	<1	<1	<1		NT		<1	
Arsenic, dissolved (mg/L)	0.05	<0.001	<0.001	<0.001		NT		<0.001	
Barium, dissolved (mg/L)	2	<0.01	<0.01	<0.01		NT		<0.01	
Cadmium, dissolved (mg/L)	0.005	<0.001	<0.001	<0.001		NT		<0.001	
Chromium, dissolved (mg/L)	0.1	<0.03	<0.03	<0.03		NT		<0.03	
Copper, dissolved (mg/L)	1	<0.03	<0.03	<0.03		NT		<0.03	
Iron, dissolved (mg/L)	0.3	<0.03	<0.03	<0.03		<0.03		<0.03	
Lead, dissolved (mg/L)	0.015	<0.005	<0.005	<0.005		NT		<0.005	
Magnesium, dissolved (mg/L)	NA	<0.1	<0.1	<0.1		NT		<0.1	
Mercury, dissolved (mg/L)	0.002	<0.0005	<0.0005	<0.0005		NT		<0.0005	
Zinc, dissolved (mg/L)	5	<0.03	<0.03	<0.03		NT		<0.03	
Chemical Oxygen Demand (mg/L)	NA	<10	<10	<10		<10		<10	
Chloride (mg/L)	250	<10	<10	<10		<10		<10	
Nitrogen, Ammonia (mg/L)	NA	<1	<1	<1		<1		<1	
Phenols, total (mg/L)	4	NT	NT	NT		NT		<0.1	
Total Organic Halogens (TOX) (mg/L)	None	NT	NT	NT		NT		<0.001	

NT = Not Tested

TABLE-11: STATIC GROUNDWATER LEVELS

Boring / Well Number	Static Water Levels	Static Water Level								
Date	4/2/97	5/12/97	6/30/97	7/28/97	8/19/97	9/8/97	10/20/97	11/97	12/1/97	1/28/98
MW-92-1	18.13	16.98	17.03	16.55	17.00	17.78	18.88	Not taken	19.05	19.28
MW-92-2	18.80	17.69	17.81	17.07	17.70	18.46	19.57	Not taken	19.73	19.98
MW-92-3	NA	Not taken	NA	NA						
MW-92-4	21.28	20.06	20.63	20.31	21.20	22.09	23.30	Not taken	23.44	23.47
MW-92-5	21.48	20.26	20.81	20.45	21.40	22.34	23.40	Not taken	23.60	23.68
MW-92-6	20.22	19.06	19.52	19.12	19.99	20.94	21.05	Not taken	22.20	22.30
MW-92-7	22.20	19.05	19.89	19.20	20.09	21.02	22.15	Not taken	22.35	22.36
L-1	Dry	Not taken	Dry	Dry						
L-2	Dry	Not taken	Dry	Dry						

Boring / Well Number	Static Water Levels	Static Water Level								
Date	9/10/98	3/23/99	4/25/00	7/31/00	10/25/00	1/12/01	2/12/01	3/29/01	4/30/01	5/25/01
MW-92-1	15.57	19.06	21.53	NA	21.06	NA	NA	NA	19.04	NA
MW-92-1R	NA	NA	19.54	18.53	19.96	15.17	14.1	13.82	12.34	12.20
MW-92-2	16.24	19.76	22.20	20.49	21.75	NA	NA	NA	19.71	NA
MW-92-3	NA	NA	20.10	18.03	23.45	23.66	23.08	21.63	20.00	19.84
MW-92-4	20.24	23.00	25.73	NA	25.32	NA	NA	NA	21.70	NA
MW-92-5	20.46	23.17	25.96	NA	25.55	NA	NA	NA	21.94	NA
MW-92-6	17.61	21.74	27.96	NA	27.47	NA	NA	NA	23.90	NA
MW-92-7	19.16	21.92	28.15	NA	27.66	NA	NA	NA	24.00	NA
L-1	Dry	NA	Dry	NA	Dry	NA	NA	NA	NA	NA
L-2	Dry	NA	Dry	NA	Dry	NA	NA	NA	NA	NA

NA = Not Available

TABLE 11 Continued: STATIC GROUNDWATER LEVELS

Boring / Well Number	Static Water Levels	Static Water Level								
Date	6/30/01	7/31/01	8/31/01	9/29/01	10/29/01	11/30/01	12/31/01	1/31/02	4/26/02	10/31/02
MW-92-1	NA	NA	NA	NA	19.57	NA	NA	NA	20.85	19.70
MW-92-1R	11.11	10.58	11.69	12.59	13.23	13.85	14.06	14.44	14.42	13.27
MW-92-2	NA	NA	NA	NA	20.25	NA	NA	NA	21.51	20.51
MW-92-3	19.21	18.87	20.36	21.41	22.04	22.59	22.65	23.05	22.89	21.89
MW-92-4	NA	NA	NA	NA	23.93	NA	NA	NA	24.76	23.80
MW-92-5	NA	NA	NA	NA	24.18	NA	NA	NA	25.00	24.03
MW-92-6	NA	NA	NA	NA	27.32	NA	NA	NA	26.94	25.96
MW-92-7	NA	NA	NA	NA	26.28	NA	NA	NA	27.10	26.10
L-1	NA	NA								
L-2	NA	NA								

NA = Not Available

TABLE 11 Continued: STATIC GROUNDWATER LEVELS

Boring / Well Number	Static Water Levels	Static Water Level								
Date	4/24/03	10/30/03	4/30/04	10/13/04	4/28/05	10/27/05	4/27/06	10/19/06	4/27/07	10/16/07
MW-92-1	20.69	20.02	18.95	18.17	22.70	20.44	19.32	19.95	16.78	17.00
MW-92-1R	14.15	13.65	12.38	11.65	16.30	13.85	12.50	13.41	4.54	1.68
MW-92-2	21.37	20.69	19.63	18.78	23.37	21.48	20.00	20.65	17.46	17.68
MW-92-3	22.54	22.29	20.77	20.27	25.35	22.38	20.66	22.08	18.02	18.56
MW-92-4	24.32	24.13	22.61	22.10	27.31	24.22	22.21	23.58	19.88	20.32
MW-92-5	24.63	24.39	22.79	22.34	27.36	24.48	22.70	24.24	20.23	20.68
MW-92-6	26.54	26.31	24.65	24.29	29.15	26.37	24.62	26.13	22.59	22.65
MW-92-7	26.70	26.49	24.87	24.43	28.28	26.51	24.75	26.30	22.29	22.76
L-1	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	NA	NA
L-2	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	NA	NA

NA = Not Available

TABLE 12: UPPER AQUIFER (Monitoring wells are shallow): Concentrations exceeding Upgradient Mean + 2(Standard Deviation)

Chemical	Upgradient Mean + 2(standard deviation)	Date of exceedence(s)	Monitoring well concentration (mg/L)	
			MW-92-4	MW-92-6
Zinc	0.030	4/97	0.032	
		7/97	0.046	0.031
Chloride	61.35	4/97		61
		7/97		88
		10/97		155
		1/98	80	142
		3/99		100
		4/00		120
		10/00		119
		4/01		135
		10/01	63	117
		4/02	75	126
		10/02	102	127
		4/03	64	129
		10/03	117	113
		4/04	61	115
		10/04	115	123
		4/05		126
		10/05	106	103
		4/06	84	120
		10/06	117	119
		10/07		110
Nitrogen, Ammonia	1.42	10/97		3.2
Iron, Dissolved	0.23	9/98		4.12
		10/00		0.358
		4/03		0.933
		4/06		0.429
Chemical O ₂ Demand	17.35	10/97		36
		1/98	23	26
		3/99		19.4
		10/00		22
		10/02	20	21
		4/03	24	
		10/03	24	
		4/04		19
		4/05		23
		10/06		18

TABLE 12: Continued...

Chemical	Upgradient Mean + 2(standard deviation)	Date of exceedence(s)	Monitoring well concentration (mg/L)	
			MW-92-4	MW-92-6
Conductance	1.25	9/98		1.50
		4/00		1.86
		10/00		1.79
		4/01		1.83
		10/01		1.33
		4/02		1.32
		10/02		1.52
		4/03		1.71
		4/05		1.27
		10/05		1.27
		4/06		1.53
		10/06	1.30	1.37
		10/06	1.39	1.57
PH	8.09	10/97		9.9
		1/98		8.6
		4/01		7.8
Temperature	16.04	7/97	21.1	20

TABLE 13: UPPER AQUIFER (Monitoring wells are shallow) - Concentrations exceeding both Action Levels and Upgradient Mean + 2(Standard Deviation)

Chemical	Date of exceedence(s)	Action Level	Upgradient Mean + 2(standard deviation)	Monitoring well concentration (mg/L)	
					MW-92-6
Arsenic	7/97	0.001	0.001		0.009
	10/97				0.014
	1/98				0.005
Iron	9/98	0.3	0.23		4.12
	10/00				0.358
	4/03				0.933
	4/06				0.429
PH	10/97	Upper action level = 8.5	8.14		9.9
	1/98				8.6

TABLE 14: LOWER AQUIFER (Monitoring wells are deep): Concentrations exceeding Upgradient Mean + 2(Standard Deviation)

Chemical	Upgradient Mean + 2(standard deviation)	Date of exceedence(s)	Monitoring well concentration (mg/L)	
			MW-92-5	MW-92-7
Barium	0.1599	1/98		0.167
		3/99	0.19	0.164
Magnesium, Dissolved	52.8382	4/97		57
		1/98		61
		3/99		55.7
Zinc, Dissolved	0.0486	7/97	0.083	0.072
Chloride	94.25	10/03		113
Chemical O₂ Demand	16.26	4/97		19
		4/03		25
		4/04		20
		4/05		28
		10/06		17
Conductance	1.30	9/98		1.5
		3/99		1.43
		10/02		1.35
Temperature	15.93	7/97	18.30	17.80

TABLE 15: SURFACE WATER: Concentrations Exceeding Action Levels

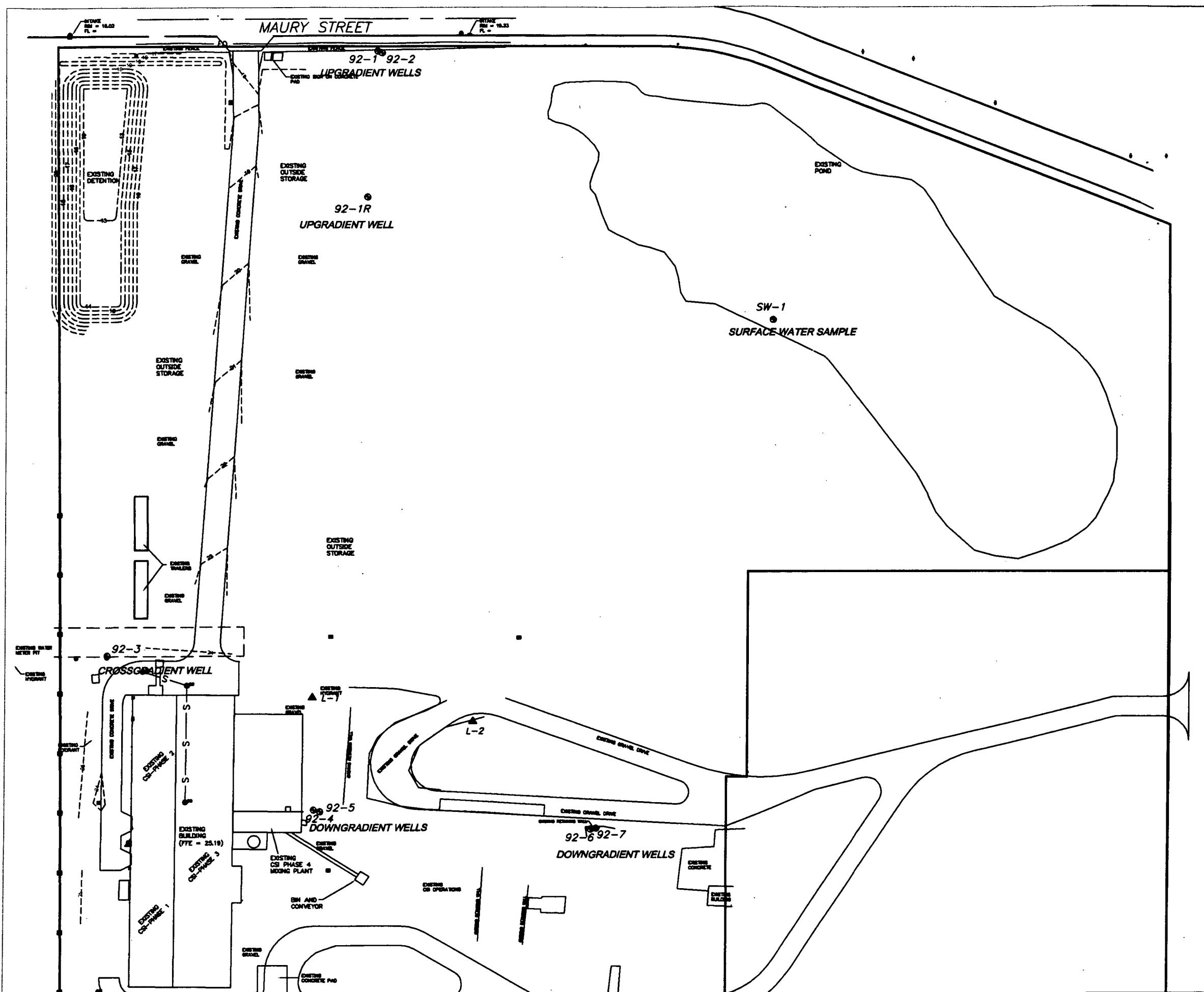
Chemical	Date of exceedence(s)	Action Level	SW-1 concentration
Arsenic	4/97	0.001	0.0013 mg/L
	7/97		0.002 mg/L
	10/97		0.0029 mg/L
	1/98		0.003 mg/L
	9/98		0.003 mg/L
Iron	10/06	0.3	0.378
PH	4/97	Upper action level = 8.5	11.4
	7/97	Lower action level = 6.5	10.1
	10/97		11.2
	1/98		11.8
	9/98		9.5
	3/99		9.8
	4/00		9.8
	4/01		8.7
	4/02		11.3
	10/02		11.2
	4/03		11.3
	10/03		10.6
	4/04		10.29
	10/04		9.42
	4/05		9.16
	10/05		9.77
	4/06		10.02
	10/06		10.43
	4/07		9.11

TABLE 16: METHANE MONITORING RESULTS

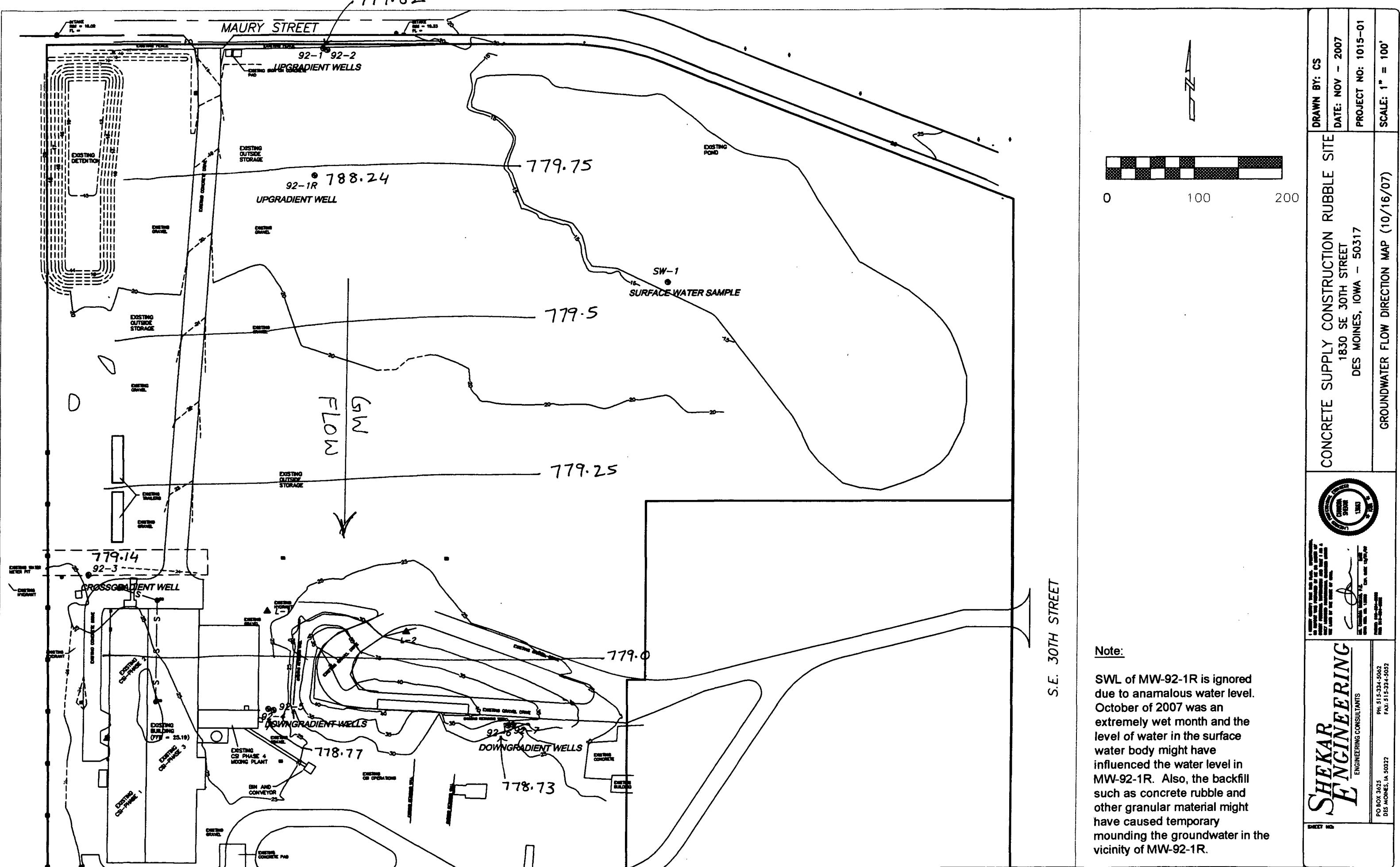
Methane Sampling Location	Methane Reading									
Date	1/12/01	2/12/01	3/29/01	4/30/01	5/25/01	6/30/01	7/31/01	8/31/01	9/29/01	10/29/01
Location-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Location-2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Location-3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Location-4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Location-5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Location-6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Location-7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Location-8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Methane Sampling Location	Methane Reading									
Date	11/30/01	12/31/01	1/31/02	2/25/02	3/29/02	4/28/02				
Location-1	0.00	0.00	0.00	0.00	0.00	0.00				
Location-2	0.00	0.00	0.00	0.00	0.00	0.00				
Location-3	0.00	0.00	0.00	0.00	0.00	0.00				
Location-4	0.00	0.00	0.00	0.00	0.00	0.00				
Location-5	0.00	0.00	0.00	0.00	0.00	0.00				
Location-6	0.00	0.00	0.00	0.00	0.00	0.00				
Location-7	0.00	0.00	0.00	0.00	0.00	0.00				
Location-8	0.00	0.00	0.00	0.00	0.00	0.00				

**APPENDIX - 2
MAPS**



SHEKAR ENGINEERING		CONCRETE SUPPLY CONSTRUCTION RUBBLE SITE	
		1830 SE 30TH STREET DES MOINES, IOWA - 50317	
 			
SHEET NO. 1		DRAWN BY: CS DATE: NOV - 2007 PROJECT NO: 1015-01 SCALED SITE PLAN MAP SCALE: 1" = 100'	
PO BOX 3625 DES MOINES, IA 50322		PH: 515-334-5062 FAX: 515-334-5052	



APPENDIX - 3
CONTAMINANT GRAPHS

Upper Aquifer (Monitoring Wells are Shallow) Sampling Result - 1997 to 2007

Arsenic, Dissolved (mg/L)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1		MW-92-4	MW-92-6
Apr-97	<0.001		<0.001	0.001
Jul-97	<0.001		<0.001	0.009
Oct-97	<0.001		<0.001	0.014
Jan-98	<0.001		<0.001	0.005
Mar-99	<0.001		<0.001	<0.001

Upgradient Mean + 2(Standard Deviation) = **0.0010** Action Level = **0.001 dNRL**

Barium, Dissolved (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1		MW-92-4	MW-92-6
Apr-97	0.091		0.042	0.075
Jul-97	0.089		0.035	0.034
Oct-97	0.085		0.037	0.030
Jan-98	0.098		0.04	0.069
Mar-99	0.085		0.05	0.098

Upgradient Mean + 2(Standard Deviation) = **0.1003** Action Level = **2 fHAL**

Magnesium, Dissolved (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1		MW-92-4	MW-92-6
Apr-97	46.7		34.4	30.7
Jul-97	46.9		31.9	14
Oct-97	43		31.5	2.23
Jan-98	45		29	7.3
Mar-99	42.1		25.7	27.9

Upgradient Mean + 2(Standard Deviation) = **48.9952** Action Level = **None**

Zinc, Dissolved (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1		MW-92-4	MW-92-6
Apr-97	<0.03		0.032	<0.03
Jul-97	<0.03		0.046	0.031
Oct-97	<0.03		<0.03	<0.03
Jan-98	<0.03		<0.03	<0.03
Mar-99	<0.03		<0.03	<0.03

Upgradient Mean + 2(Standard Deviation) = **0.0300** Action Level = **2 fHAL**

Trichloroethylene ($\mu\text{g/l}$)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1		MW-92-4	MW-92-6
Apr-97	6.4		<1	<1
Jul-97	3.0		<1	<1
Oct-97	6.0		<1	<1
Jan-98	6.9		<1	<1
Mar-99	6.3		<1	<1
Apr-00	9.7		<1	<1
Oct-00	20.0		<1	<1
Apr-01	4.4		<1	<1
Oct-01	4.8		<1	<1
Apr-02	5.9		<1	<1
Oct-02	6.8		<1	<1
Apr-03	7.3		<1	<1
Oct-03	7.0		<1	<1
Apr-04	6.3		<0.3	<0.3
Oct-04	6.4		<0.3	<0.3
Apr-05	10.9		<0.3	<0.3
Oct-05	8.4		<0.3	<0.3
Apr-06	8.0		<0.3	<0.3
Oct-06	5.8		<1	<1
Apr-07	3.6		<1	<1
Oct-07	3.6		<1	<1

Upgradient Mean + 2(Standard Deviation) = **14.10** Action Level = **3 fHAL**

Trichloroethylene ($\mu\text{g/l}$)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1R		MW-92-4	MW-92-6
Apr-97			<1	<1
Jul-97			<1	<1
Oct-97			<1	<1
Jan-98			<1	<1
Mar-99			<1	<1
Apr-00	<1		<1	<1
Jul-00	<1			
Oct-00	<1		<1	<1
Jan-01	<2			
Apr-01	<1		<1	<1
Oct-01	<1		<1	<1
Apr-02	<1		<1	<1
Oct-02	<1		<1	<1
Apr-03	<1		<1	<1
Oct-03	<1		<1	<1
Apr-04	<0.3		<0.3	<0.3
Oct-04	<0.3		<0.3	<0.3
Apr-05	<0.3		<0.3	<0.3
Oct-05	<0.3		<0.3	<0.3
Apr-06	<0.3		<0.3	<0.3
Oct-06	<1		<1	<1
Apr-07	<1		<1	<1
Oct-07	<1		<1	<1

Upgradient Mean + 2(Standard Deviation) = **1.72** Action Level = **3 fHAL**

Chloride (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1		MW-92-4	MW-92-6
Apr-97	40		53	61
Jul-97	49		47	88
Oct-97	41		58	155
Jan-98	44		80	142
Sep-98	49		52	54
Mar-99	34		48	100
Apr-00	37		40	120
Oct-00	41		58	119
Apr-01	49		49	135
Oct-01	38		63	117
Apr-02	39		75	126
Oct-02	53		102	127
Apr-03	40		64	129
Oct-03	32		117	113
Apr-04	42		61	115
Oct-04	44		115	123
Apr-05	60		55	126
Oct-05	54		106	103
Apr-06	52		84	120
Oct-06	59		117	119
Apr-07	56		61	50
Oct-07	48		61	110

Upgradient Mean + 2(Standard Deviation) = **61.35** Action Level = 250 fSMCL

Nitrogen, Ammonia (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1		MW-92-4	MW-92-6
Apr-97	<1		<1	<1
Jul-97	<1		<1	<1
Oct-97	<1		<1	3.2
Jan-98	<1		<1	1.1
Sep-98	<1		<1	<1
Mar-99	1.9		<1	<1
Apr-00	<1		<1	<1
Oct-00	<1		<1	<1
Apr-01	<1		<1	<1
Oct-01	<1		<1	<1
Apr-02	<1		<1	<1
Oct-02	<1		<1	<1
Apr-03	<1		<1	<1
Oct-03	<1		<1	<1
Apr-04	<1		<1	<1
Oct-04	<1		<1	<1
Apr-05	<1		<1	<1
Oct-05	<1		<1	<1
Apr-06	<1		<1	<1
Oct-06	<1		<1	<1
Apr-06	<1		<1	<1
Oct-06	<1		<1	<1

Upgradient Mean + 2(Standard Deviation) = **1.42** Action Level = 30 dHAL

Iron, Dissolved (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1		MW-92-4	MW-92-6
Apr-97	<0.03		<0.03	<0.03
Jul-97	<0.03		<0.03	0.179
Oct-97	<0.03		0.046	0.235
Jan-98	<0.03		0.072	0.113
Sep-98	<0.03		<0.03	4.12
Mar-99	0.102		<0.03	<0.03
Apr-00	<0.03		0.106	0.051
Oct-00	<0.03		<0.03	0.358
Apr-01	0.368		0.054	0.247
Oct-01	<0.03		0.242	0.069
Apr-02	<0.03		0.049	0.154
Oct-02	<0.03		<0.03	0.159
Apr-03	<0.03		<0.03	0.933
Oct-03	<0.03		<0.03	0.075
Apr-04	<0.03		0.041	0.053
Oct-04	0.208		<0.03	0.068
Apr-05	<0.03		<0.03	0.043
Oct-05	<0.03		<0.03	0.232
Apr-06	<0.03		<0.03	0.429
Oct-06	<0.03		<0.03	0.135
Apr-07	<0.03		<0.03	0.044
Oct-07	<0.03		<0.03	0.140

Upgradient Mean + 2(Standard Deviation) = **0.22** Action Level = 0.3 f action level

Chemical Oxygen Demand (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1		MW-92-4	MW-92-6
Apr-97	<10		14	15
Jul-97	<10		<10	<10
Oct-97	<10		<10	36
Jan-98	<10		23	26
Sep-98	<10		14	<10
Mar-99	<10		<10	19.4
Apr-00	<10		<10	<10
Oct-00	<10		<10	22
Apr-01	<10		<10	12
Oct-01	<10		<10	<10
Apr-02	14		<10	14
Oct-02	<10		20	21
Apr-03	17		24	15
Oct-03	<10		24	14
Apr-04	<10		15	19
Oct-04	<10		<10	13
Apr-05	22		<10	23
Oct-05	<10		<10	16
Apr-06	<10		<10	<10
Oct-06	<10		<10	18
Apr-07	<10		<10	<10
Oct-07	<10		<10	<10

Upgradient Mean + 2(Standard Deviation) = **16.98** Action Level = None

Conductance (mS)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1		MW-92-4	MW-92-6
Apr-97	0.68		0.68	0.67
Jul-97	1.00		0.90	0.80
Oct-97	0.95		0.94	1.09
Jan-98	0.93		0.90	1.23
Sep-98	1.12		1.00	1.50
Mar-99	1.02		0.96	1.21
Apr-00	1.04		0.97	1.86
Oct-00	1.15		0.96	1.79
Apr-01	1.13		1.07	1.83
Oct-01	1.02		0.90	1.33
Apr-02	0.99		0.70	1.32
Oct-02	1.18		0.74	1.52
Apr-03	1.01		0.64	1.71
Oct-03	1.04		0.98	1.19
Apr-04	1.06		0.64	1.23
Oct-04	1.13		0.97	1.19
Apr-05	1.11		0.63	1.27
Oct-05	1.01		1.23	1.27
Apr-06	1.04		1.09	1.53
Oct-06	1.08		1.30	1.37
Apr-07	1.13		0.91	0.87
Oct-07	1.12		1.39	1.57

Upgradient Mean + 2(Standard Deviation) = **1.25** Action Level = None

pH

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-1		MW-92-4	MW-92-6
Apr-97	7.1		7.6	8.2
Jul-97	6.7		7.3	8.0
Oct-97	7.3		8.0	9.9
Jan-98	7.4		7.8	8.6
Sep-98	7.0		7.6	8.2
Mar-99	6.7		6.8	7.0
Apr-00	6.9		6.9	7.1
Oct-00	6.7		7.1	7.0
Apr-01	7.0		7.6	7.8
Oct-01	7.7		6.8	7.0
Apr-02	8.4		7.8	7.0
Oct-02	6.8		7.2	6.8
Apr-03	6.7		7.5	6.6
Oct-03	5.9		6.7	6.9
Apr-04	5.9		6.4	6.6
Oct-04	5.3		6.4	7.3
Apr-05	6.8		7.2	6.5
Oct-05	6.0		6.9	6.5
Apr-06	6.7		6.6	6.4
Oct-06	6.4		6.9	6.9
Apr-07	6.8		6.4	7.0
Oct-07	5.9		6.0	6.9

Upgradient Mean + 2(Standard Deviation) = **8.09** Upper Action Level = 8.5 fSMCL
 Upgradient Mean - 2(Standard Deviation) = **5.36** Lower Action Level = 6.5 fSMCL

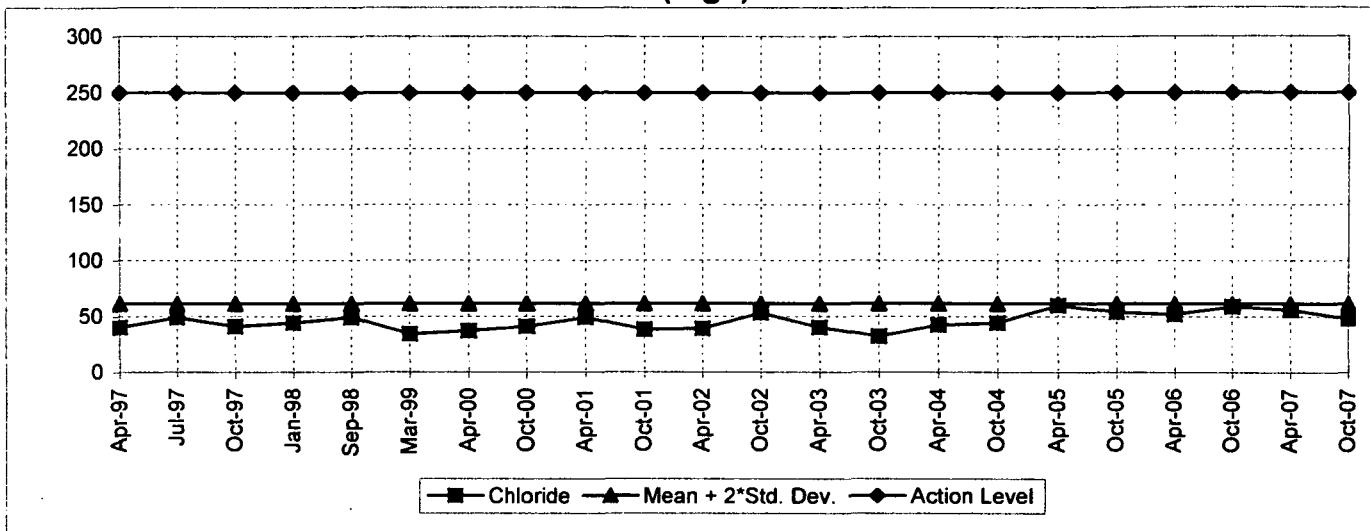
Temperature (C)

Date	<u>Upgradient</u>	<u>Downgradient</u>	
	MW-92-1	MW-92-4	MW-92-6
Apr-97	11.70	13.00	12.00
Jul-97	16.70	21.10	20.00
Oct-97	13.00	10.00	12.00
Jan-98	10.00	10.00	11.00
Sep-98	15.00	14.40	15.00
Mar-99	11.70	13.33	13.33
Apr-00	12.77	13.88	13.88
Oct-00	15.55	13.88	14.44
Apr-01	12.22	13.33	13.33
Oct-01	13.88	12.77	12.22
Apr-02	12.78	12.22	12.22
Oct-02	13.33	13.33	13.88
Apr-03	12.77	13.33	13.88
Oct-03	13.88	13.88	13.33
Apr-04	11.11	11.67	12.22
Oct-04	12.78	12.78	12.78
Apr-05	11.66	12.77	12.77
Oct-05	13.88	12.77	12.77
Apr-06	12.78	12.78	13.33
Oct-06	13.33	12.78	12.78
Apr-07	11.66	13.33	12.77
Oct-07	13.88	12.77	12.77

Upgradient Mean + 2(Standard Deviation) = **16.04** Action Level = None

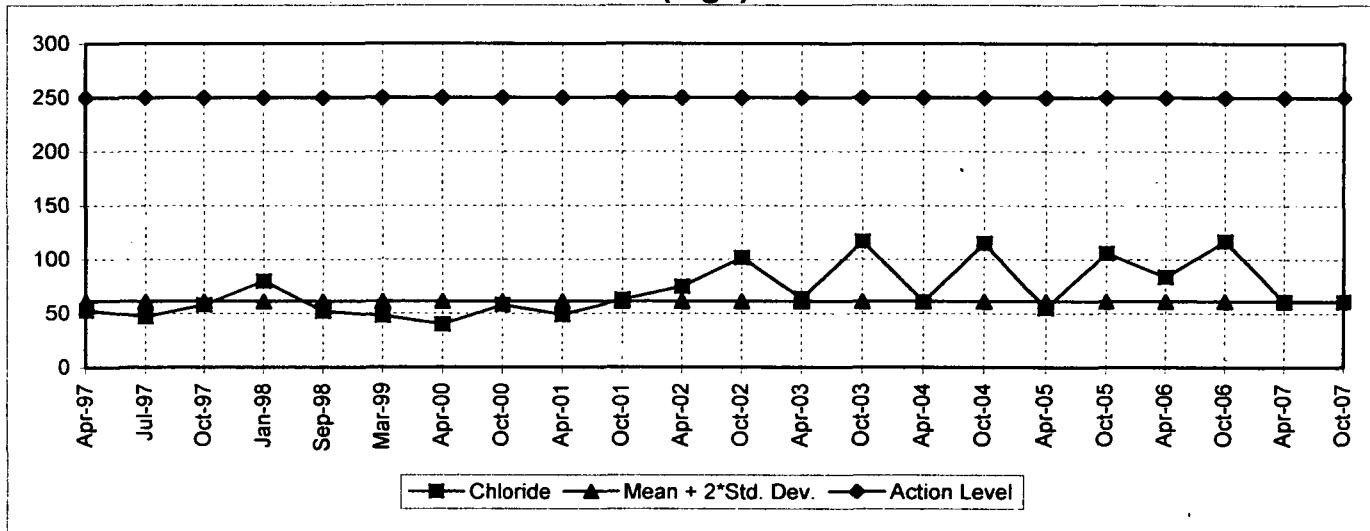
MW-92-1

Chloride (mg/l)



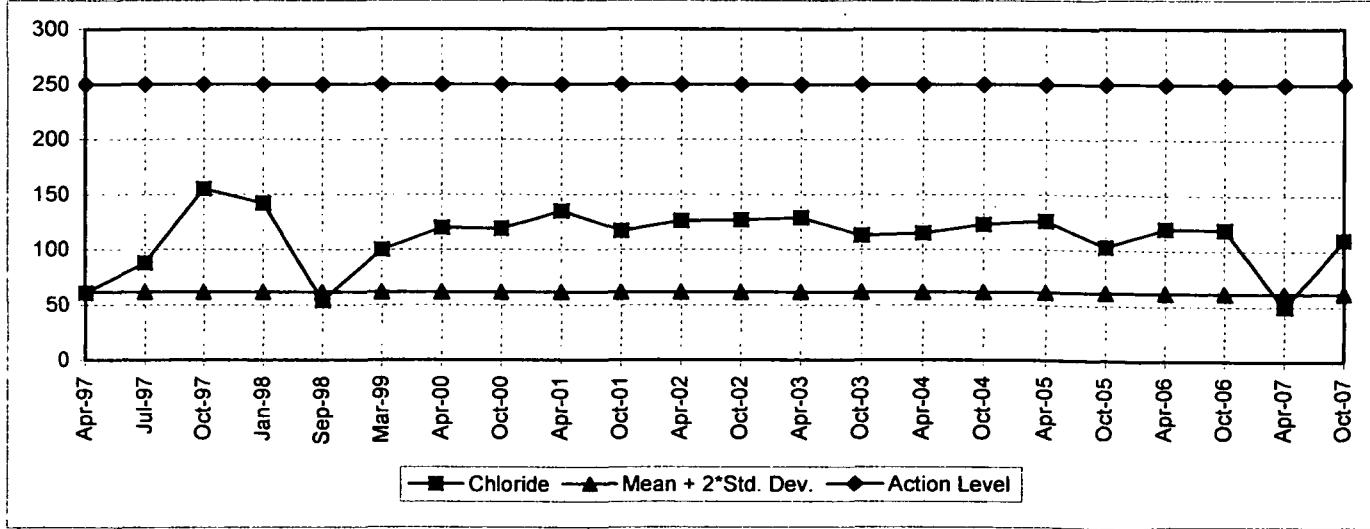
MW-92-4

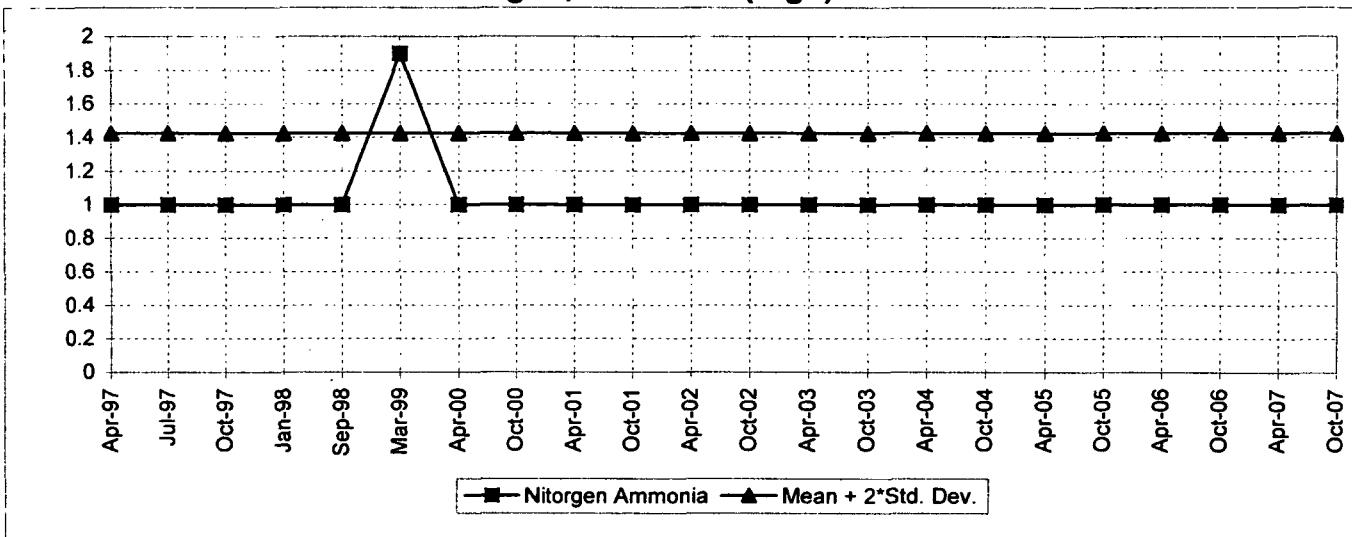
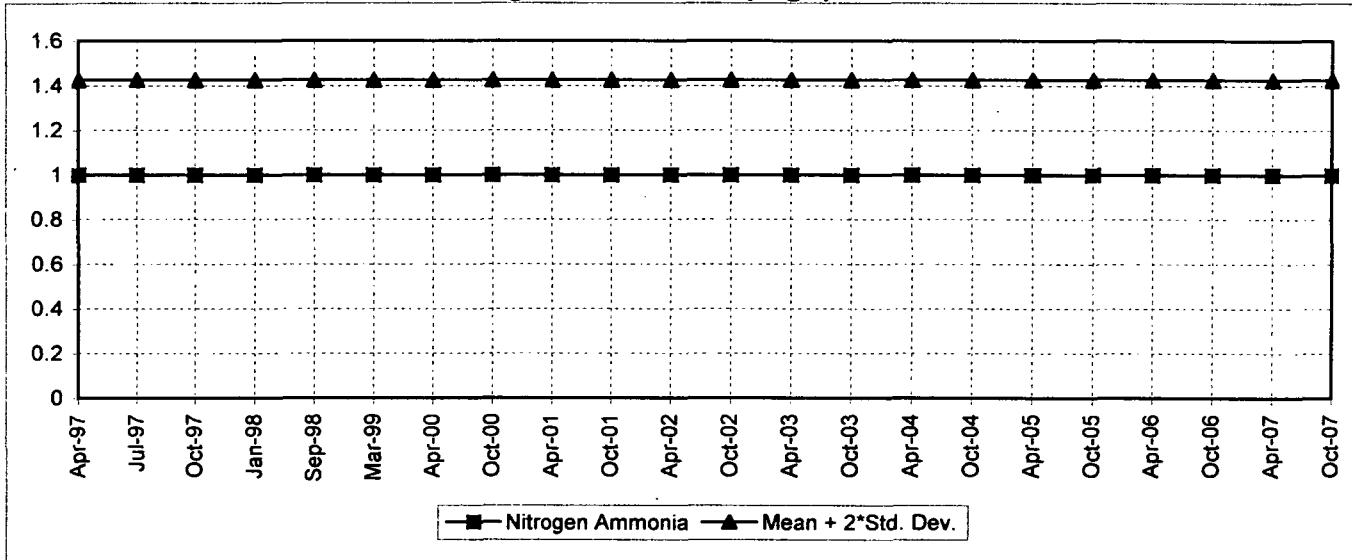
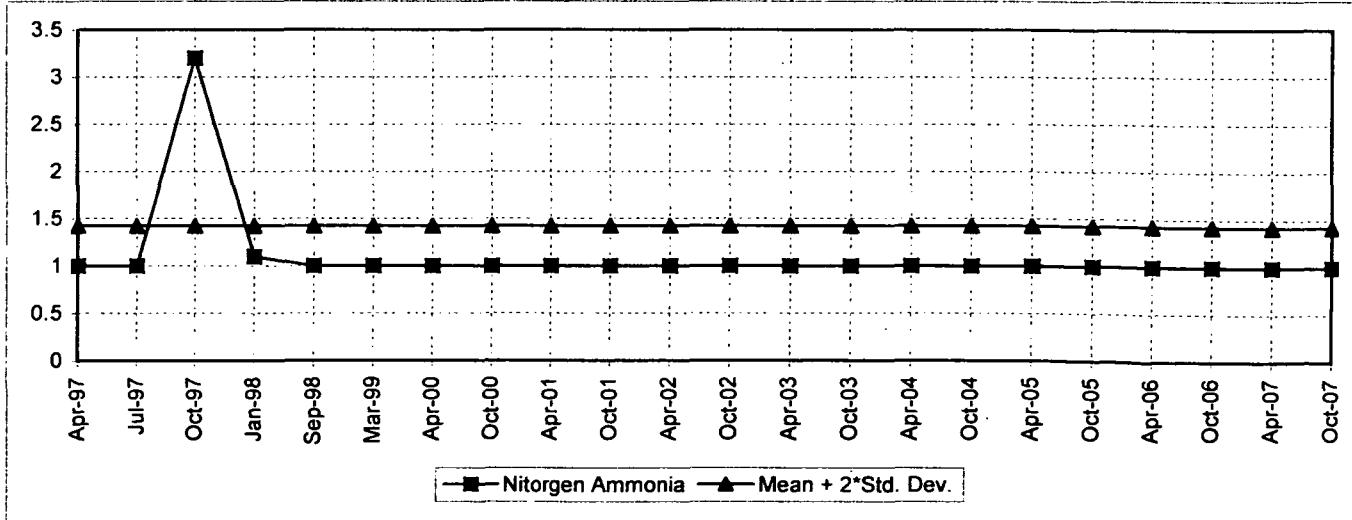
Chloride (mg/l)

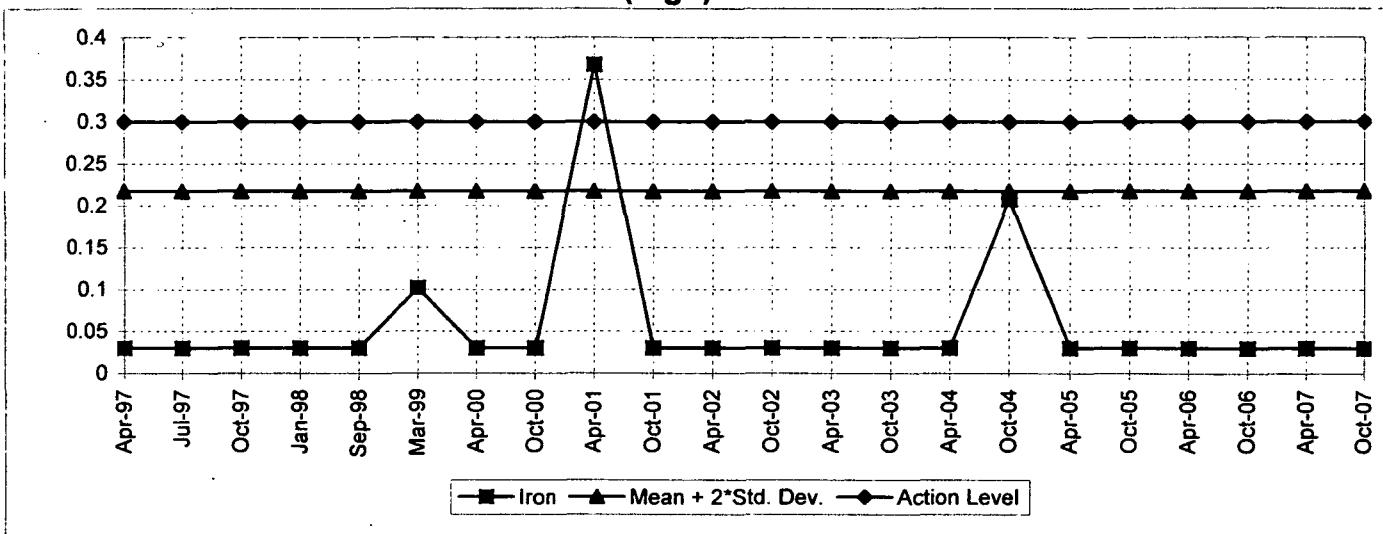
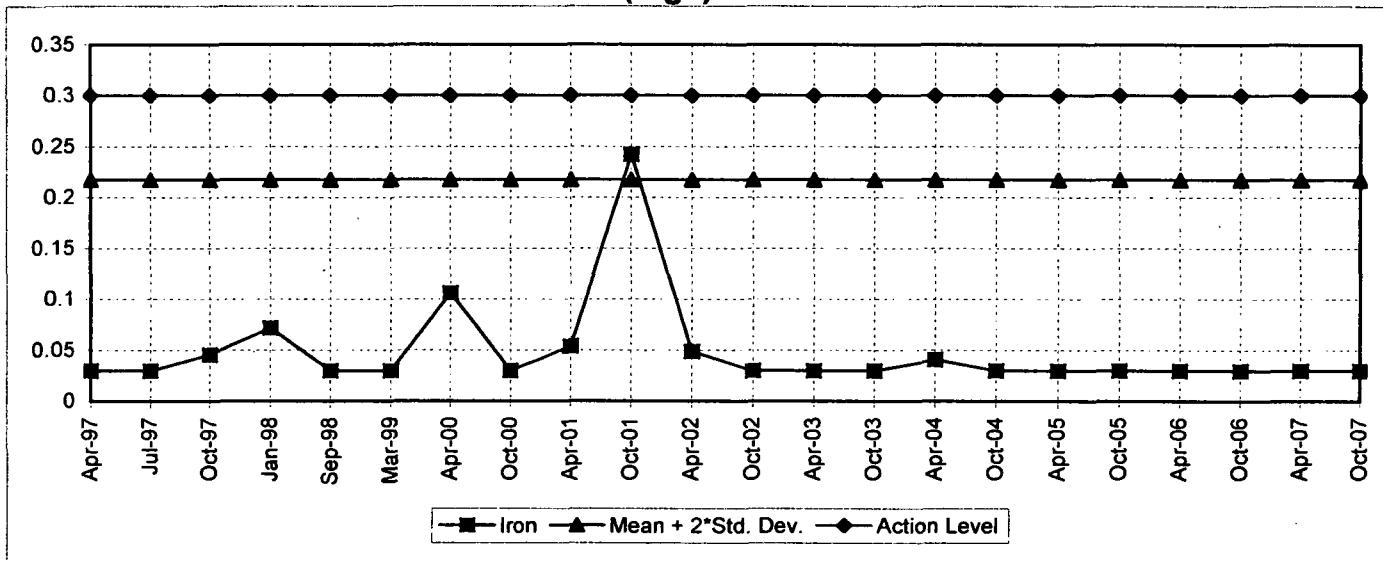
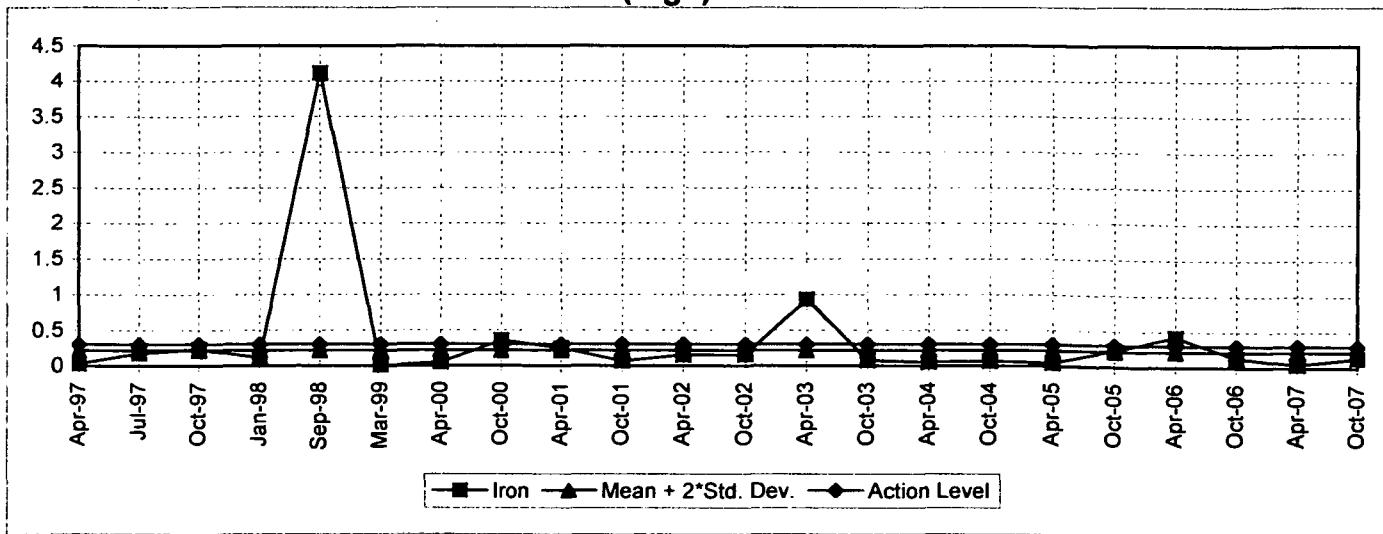


MW-92-6

Chloride (mg/l)

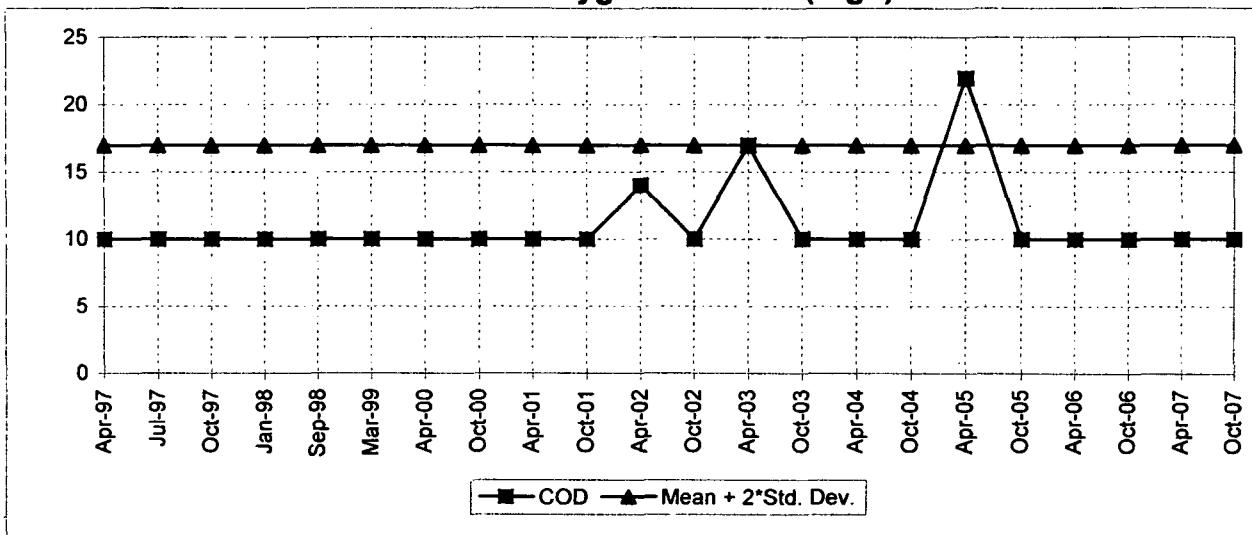


MW-92-1**Nitrogen, Ammonia (mg/l)****MW-92-4****Nitrogen, Ammonia (mg/l)****MW-92-6****Nitrogen, Ammonia (mg/l)**

MW-92-1**Iron (mg/l)****MW-92-4****Iron (mg/l)****MW-92-6****Iron (mg/l)**

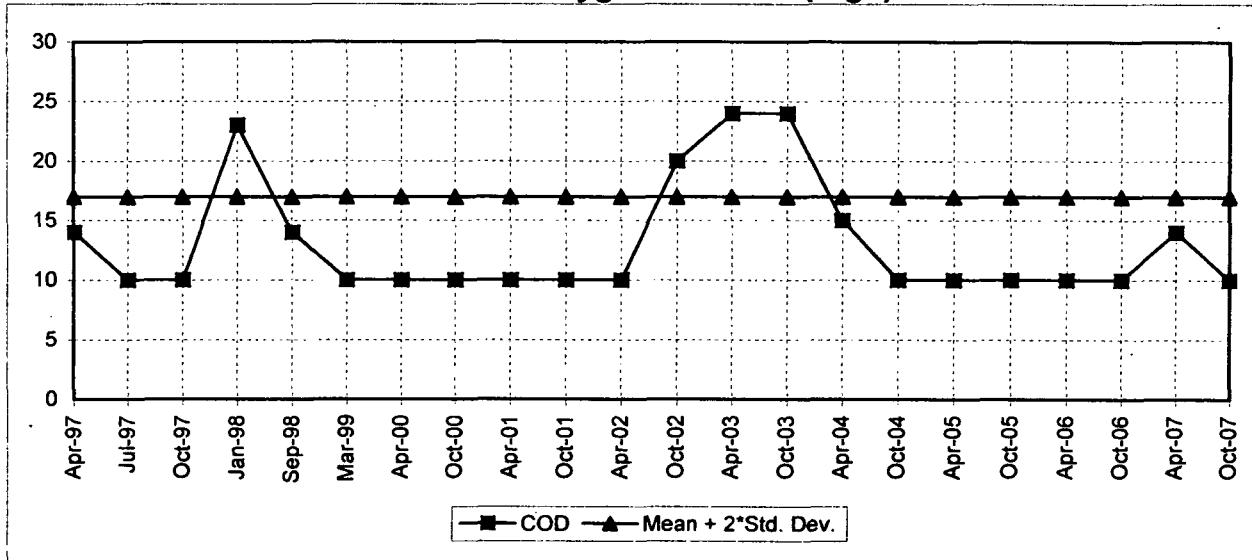
MW-92-1

Chemical Oxygen Demand (mg/l)



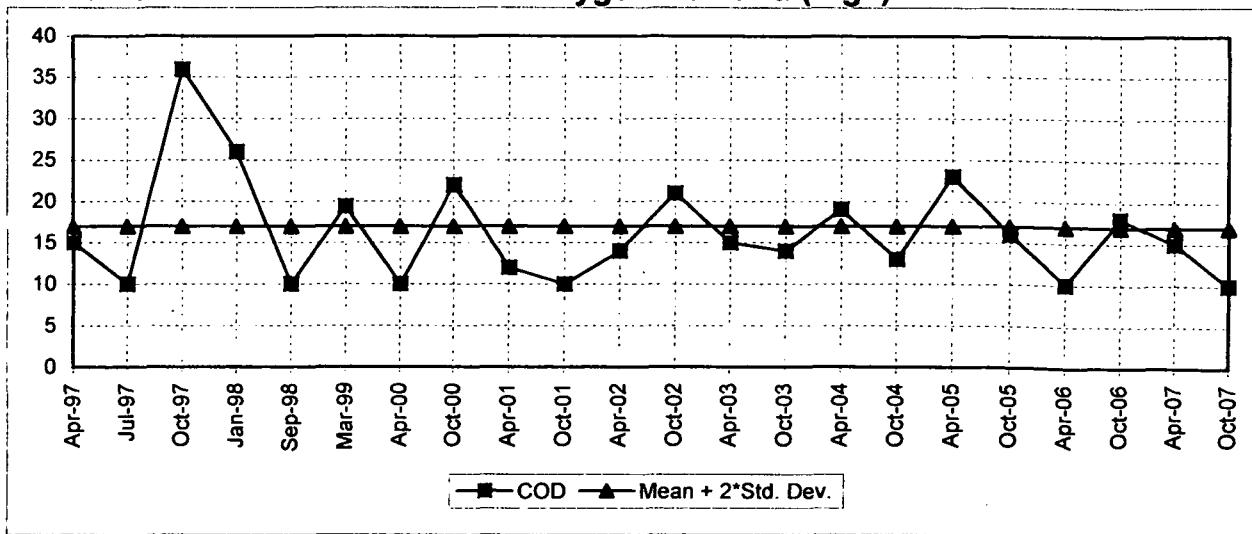
MW-92-4

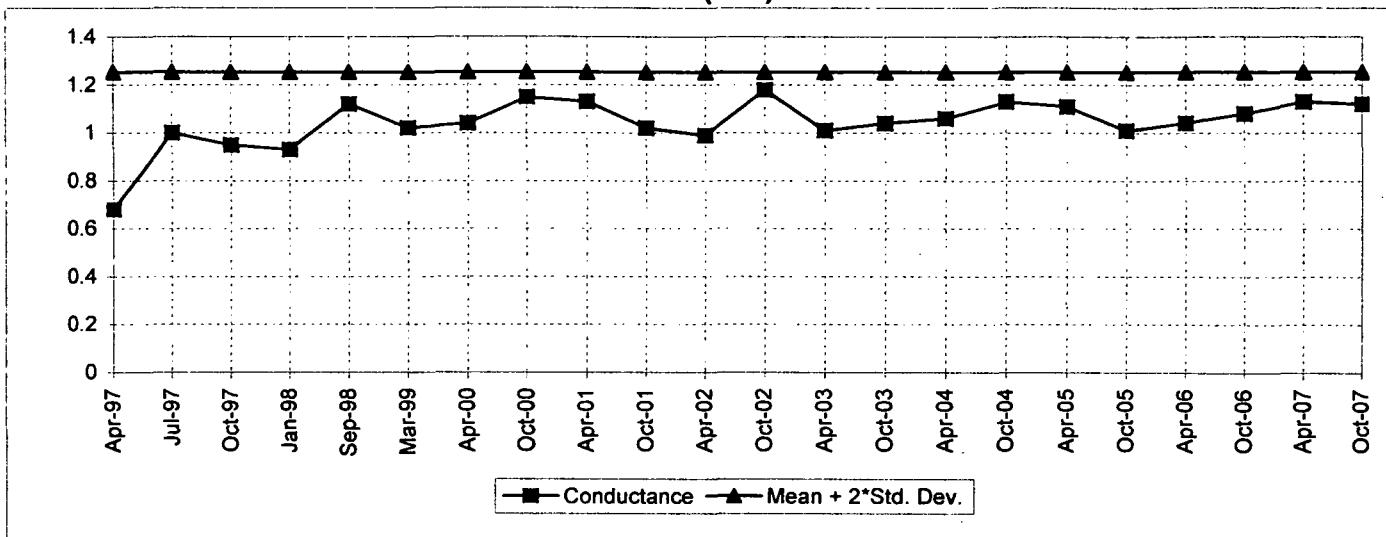
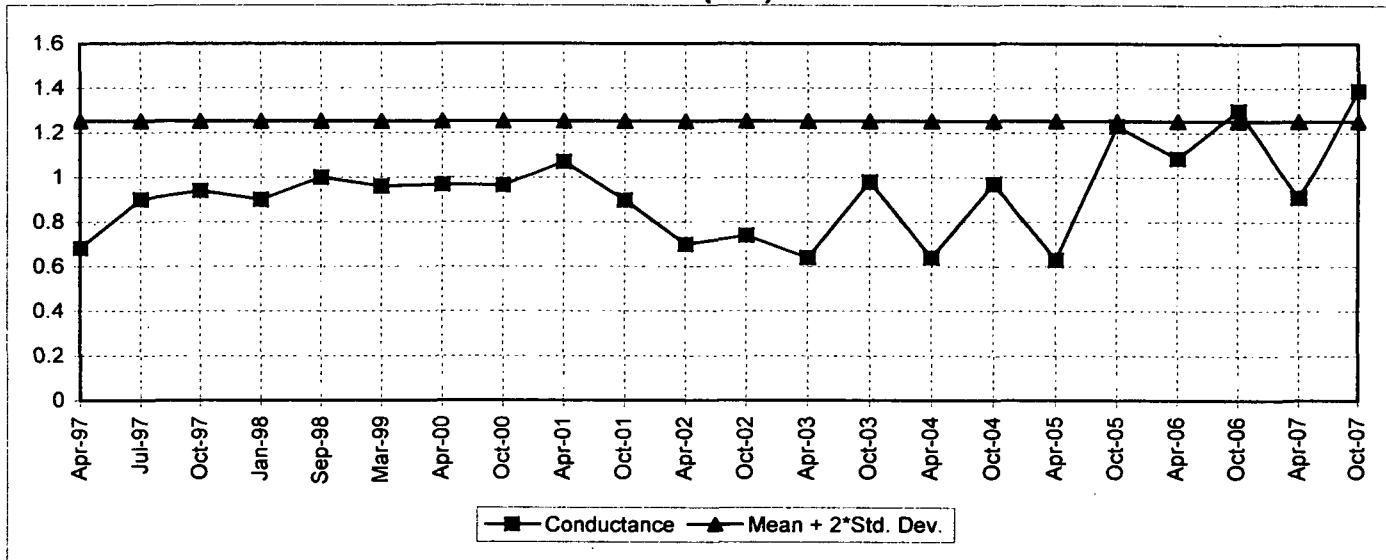
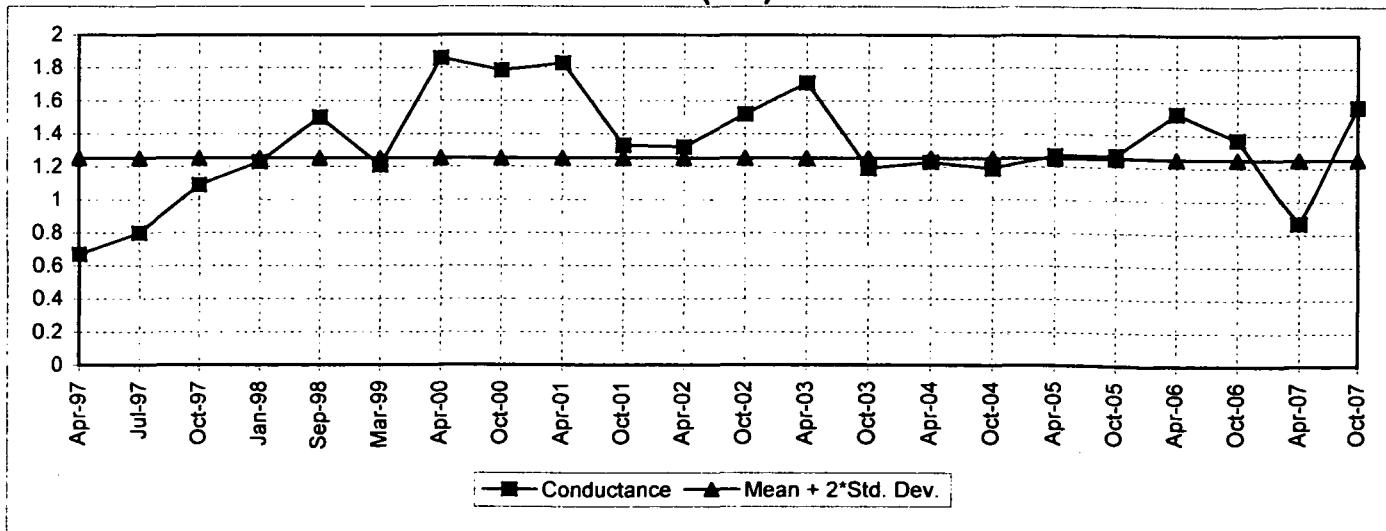
Chemical Oxygen Demand (mg/l)



MW-92-6

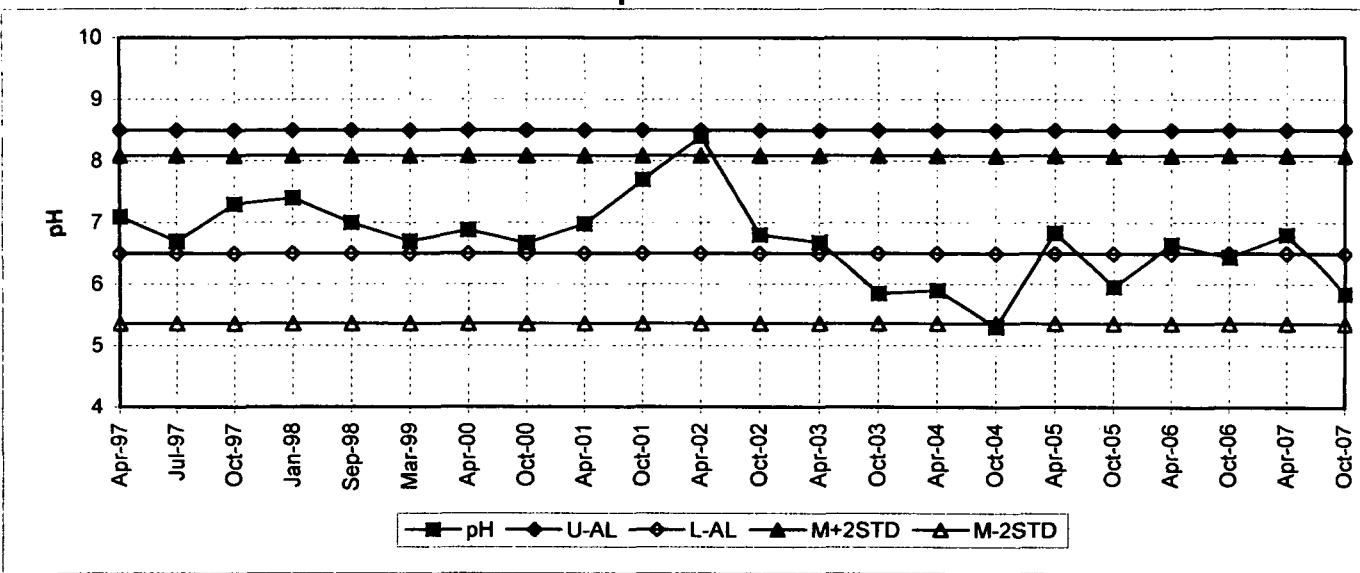
Chemical Oxygen Demand (mg/l)



MW-92-1**Conductance (mS)****MW-92-4****Conductance (mS)****MW-92-6****Conductance (mS)**

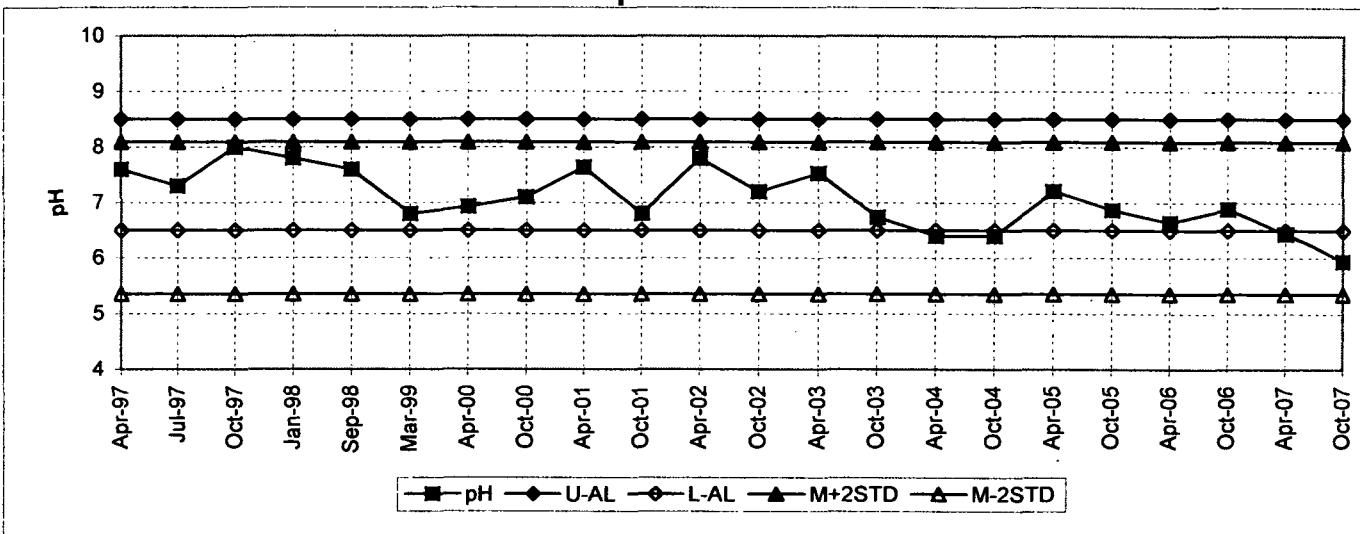
MW-92-1

pH



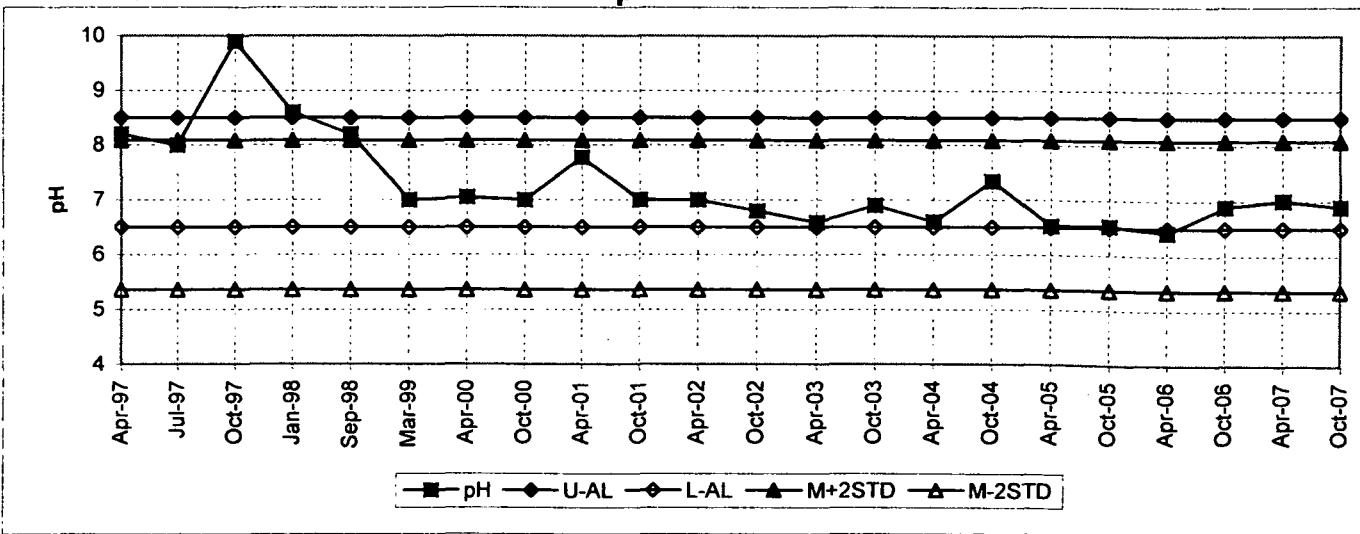
MW-92-4

pH



MW-92-6

pH



Lower Aquifer (Monitoring Wells are Deep) Sampling Result - 1997 to 2007

Arsenic, Dissolved (mg/L)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	<0.001		<0.001	<0.001
Jul-97	<0.001		<0.001	<0.001
Oct-97	<0.001		<0.001	<0.001
Jan-98	0.001		<0.001	0.001
Mar-99	<0.001		<0.001	<0.001
Upgradient Mean + 2(Standard Deviation) =		0.0010	Action Level =	
				0.001 dNRL

Barium, Dissolved (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	0.139		0.090	0.150
Jul-97	0.101		0.073	0.088
Oct-97	0.113		0.090	0.120
Jan-98	0.145		0.104	0.167
Mar-99	0.112		0.19	0.164
Upgradient Mean + 2(Standard Deviation) =		0.1599	Action Level =	
				2 fHAL

Cadmium, Dissolved (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	0.002		<0.001	<0.001
Jul-97	0.001		0.002	<0.001
Oct-97	<0.001		<0.001	<0.001
Jan-98	<0.001		<0.001	<0.001
Mar-99	<0.001		<0.001	<0.001
Upgradient Mean + 2(Standard Deviation) =		0.0021	Action Level =	
				0.005 fHAL

Magnesium, Dissolved (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	48.5		49	57
Jul-97	48.1		47.6	32.5
Oct-97	46.8		46.8	43.8
Jan-98	49.0		50	61
Mar-99	41.6		47.4	55.7
Upgradient Mean + 2(Standard Deviation) =		52.8382	Action Level =	
				None

Zinc, Dissolved (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	<0.03		<0.03	0.03
Jul-97	<0.047		0.083	0.072
Oct-97	0.03		0.032	<0.03
Jan-98	<0.03		<0.03	<0.03
Mar-99	<0.03		<0.03	<0.03
Upgradient Mean + 2(Standard Deviation) =		0.0486	Action Level =	
				2 fHAL

Chloride (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	79		69	51
Jul-97	77		75	98
Oct-97	68		78	72
Jan-98	82		85	50
Sep-98	81.2		75	54
Mar-99	80		64	57
Apr-00	27		58	41
Oct-00	51		63	46
Apr-01	68		68	39
Oct-01	69		74	52
Apr-02	62		61	52
Oct-02	71		69	58
Apr-03	36		71	58
Oct-03	70		66	113
Apr-04	73		68	53
Oct-04	72		68	49
Apr-05	40		56	61
Oct-05	50		52	55
Apr-06	46		57	58
Oct-06	48		56	56
Apr-07	49		37	64
Oct-07	39		54	61

Upgradient Mean + 2(Standard Deviation) = **94.25** Action Level = **250 fSMCL****Nitrogen, Ammonia (mg/l)**

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	<1		<1	<1
Jul-97	<1		<1	<1
Oct-97	<1		<1	<1
Jan-98	<1		<1	<1
Sep-98	<1		<1	<1
Mar-99	<1		<1	<1
Apr-00	<1		<1	<1
Oct-00	<1		<1	<1
Apr-01	<1		<1	<1
Oct-01	<1		<1	<1
Apr-02	<1		<1	<1
Oct-02	<1		<1	<1
Apr-03	<1		<1	<1
Oct-03	<1		<1	<1
Apr-04	<1		<1	<1
Oct-04	<1		<1	<1
Apr-05	<1		<1	<1
Oct-05	<1		<1	<1
Apr-06	<1		<1	<1
Oct-06	<1		<1	<1
Apr-07	<1		<1	<1
Oct-07	<1		<1	<1

Upgradient Mean + 2(Standard Deviation) = **1.00** Action Level = **30 fSMCL**

Iron, Dissolved (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	8.72		8.14	7.54
Jul-97	0.12		<0.03	0.04
Oct-97	2.76		6.65	0.06
Jan-98	9.70		9.06	8.27
Sep-98	8.35		8.50	4.12
Mar-99	8.37		7.86	6.52
Apr-00	0.56		3.20	3.23
Oct-00	<0.03		7.32	6.82
Apr-01	7.06		7.62	7.24
Oct-01	8.06		7.72	8.21
Apr-02	7.62		7.13	6.33
Oct-02	6.33		3.10	5.24
Apr-03	<0.03		0.82	6.24
Oct-03	6.29		<0.030	5.96
Apr-04	7.67		5.95	1.25
Oct-04	7.21		<0.03	6.33
Apr-05	3.82		5.78	5.05
Oct-05	7.05		6.07	5.50
Apr-06	<0.03		0.05	6.51
Oct-06	<0.03		<0.03	6.54
Apr-07	<0.03		<0.03	5.54
Oct-07	<0.03		0.16	0.58

Upgradient Mean + 2(Standard Deviation) = **12.00** Action Level = 0.3 f action level

Chemical Oxygen Demand (mg/l)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	<10		<10	19
Jul-97	<10		<10	<10
Oct-97	<10		<10	<10
Jan-98	<10		<10	<10
Sep-98	<10		<10	<10
Mar-99	<10		<10	<10
Apr-00	<10		<10	<10
Oct-00	<10		<10	<10
Apr-01	<10		<10	<10
Oct-01	<10		<10	14
Apr-02	<10		<10	11
Oct-02	11		11	14
Apr-03	18		<10	25
Oct-03	<10		<10	12
Apr-04	17		16	20
Oct-04	<10		<10	<10
Apr-05	16		15	28
Oct-05	14		16	11
Apr-06	<10		<10	<10
Oct-06	10		<10	17
Apr-07	<10		<10	<10
Oct-07	<10		<10	<10

Upgradient Mean + 2(Standard Deviation) = **16.26** Action Level = None

Conductance (mS)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	0.83		0.85	0.88
Jul-97	0.90		1.10	0.80
Oct-97	1.12		1.16	1.21
Jan-98	1.15		1.17	1.26
Sep-98	1.21		1.27	1.50
Mar-99	1.22		1.36	1.43
Apr-00	1.00		1.19	1.28
Oct-00	1.18		1.18	1.24
Apr-01	1.17		1.19	1.22
Oct-01	1.20		1.21	1.26
Apr-02	1.08		1.05	1.09
Oct-02	1.18		1.20	1.35
Apr-03	1.05		1.16	1.27
Oct-03	1.16		1.12	1.22
Apr-04	1.19		1.19	1.32
Oct-04	1.04		0.99	1.08
Apr-05	1.15		1.21	1.15
Oct-05	1.11		1.10	1.15
Apr-06	1.06		1.16	1.15
Oct-06	1.05		1.14	1.16
Apr-07	1.12		1.03	1.02
Oct-07	1.10		1.22	1.19

Upgradient Mean + 2(Standard Deviation) = **1.30** Action Level = None

pH

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	7.5		7.3	6.9
Jul-97	7.6		7.2	6.9
Oct-97	7.4		7.7	7.6
Jan-98	7.5		7.2	7.2
Sep-98	7.2		7.2	7.2
Mar-99	6.4		6.8	6.7
Apr-00	7.1		6.8	6.6
Oct-00	6.7		6.8	6.8
Apr-01	7.1		7.4	7.3
Oct-01	7.6		6.7	7.3
Apr-02	8.7		7.3	6.2
Oct-02	6.8		6.8	6.7
Apr-03	6.7		6.9	6.9
Oct-03	6.2		6.5	6.6
Apr-04	6.2		6.3	6.2
Oct-04	5.6		6.8	6.7
Apr-05	6.4		6.3	6.5
Oct-05	6.3		6.3	6.2
Apr-06	6.6		6.3	6.6
Oct-06	6.9		6.8	7.1
Apr-07	7.1		6.6	7.3
Oct-07	6.0		6.2	6.1

Upgradient Mean + 2(Standard Deviation) = **8.2669** Upper Action Level = 8.5 fSMCL
 Upgradient Mean - 2(Standard Deviation) = **5.5131** Lower Action Level = 6.5 fSMCL

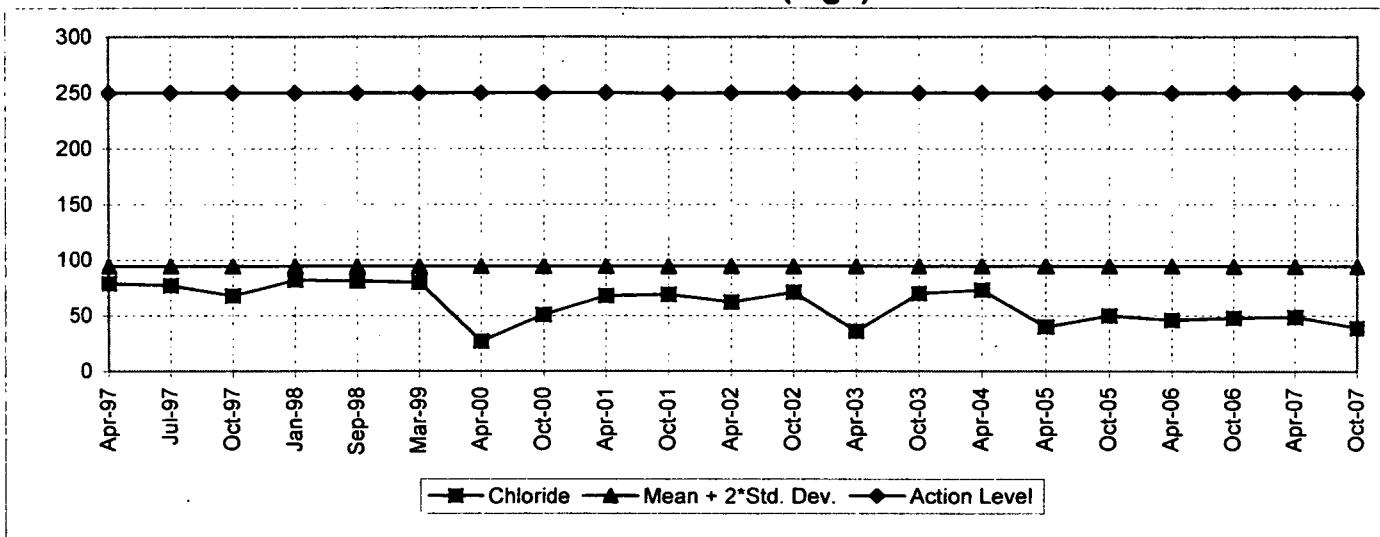
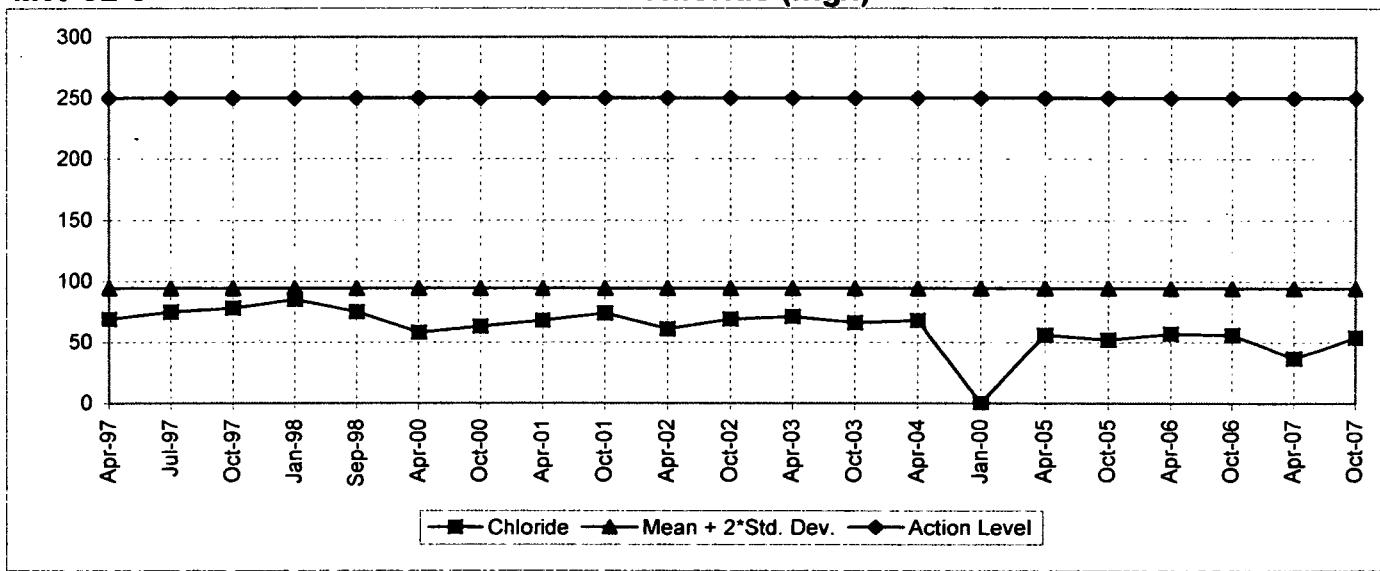
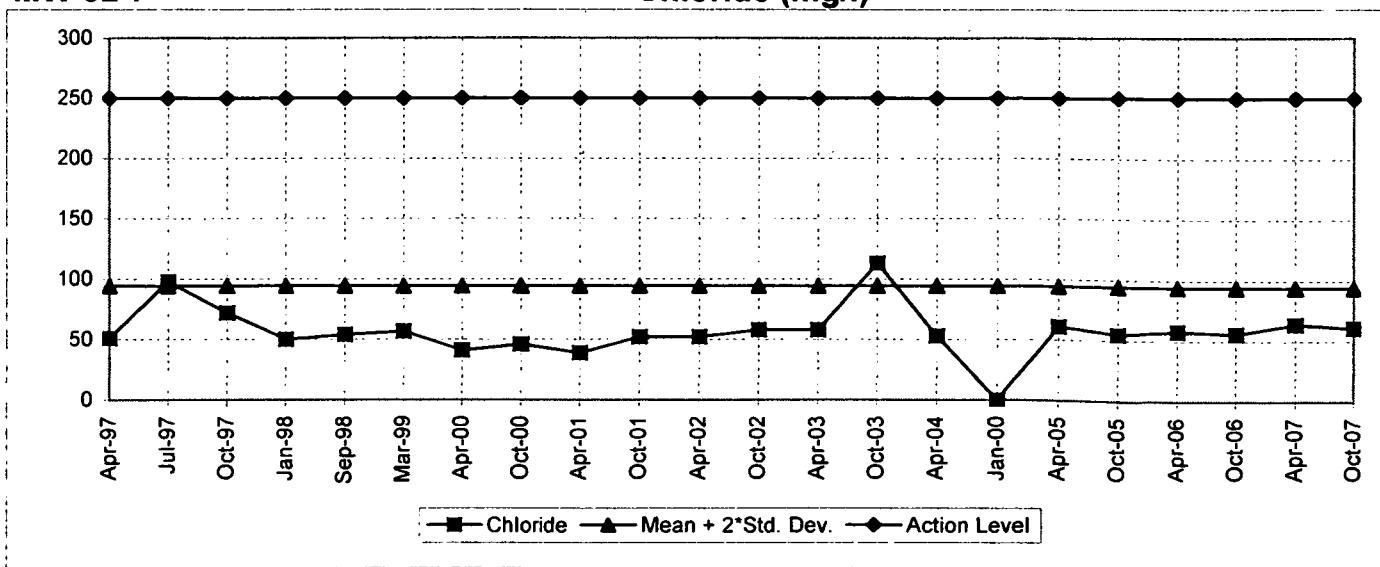
Temperature (C)

Date	<u>Upgradient</u>		<u>Downgradient</u>	
	MW-92-2		MW-92-5	MW-92-7
Apr-97	11.70		13.00	12.00
Jul-97	17.80		18.30	17.80
Oct-97	12.00		10.00	10.00
Jan-98	11.00		8.00	11.00
Sep-98	13.88		13.33	13.33
Mar-99	12.22		12.77	12.22
Apr-00	12.77		14.44	13.88
Oct-00	15.55		13.88	14.44
Apr-01	12.77		13.33	13.33
Oct-01	12.77		12.77	13.33
Apr-02	12.77		12.22	12.22
Oct-02	13.33		13.33	13.33
Apr-03	13.88		13.88	13.33
Oct-03	13.33		13.33	13.33
Apr-04	12.22		11.67	12.22
Oct-04	13.89		12.78	12.78
Apr-05	11.67		12.78	12.78
Oct-05	12.78		12.78	12.78
Apr-06	12.78		12.78	13.33
Oct-06	12.78		12.78	12.78
Apr-07	11.67		13.33	12.78
Oct-07	13.33		12.78	12.78

Upgradient Mean + 2(Standard Deviation) = **15.9346**

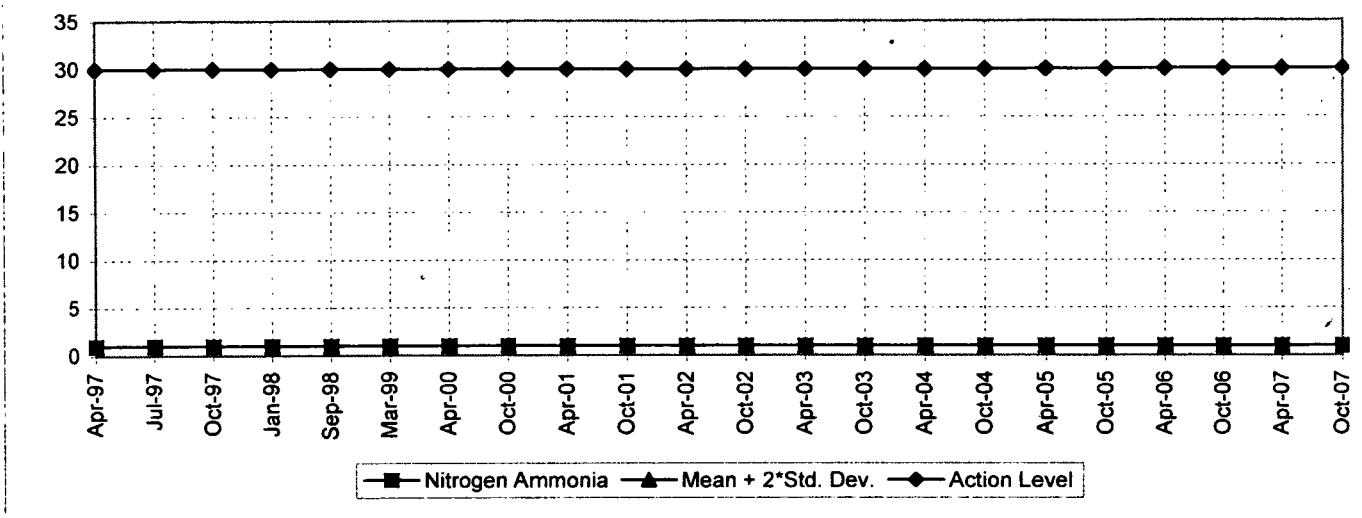
Action Level =

None

MW-92-2**Chloride (mg/l)****MW-92-5****Chloride (mg/l)****MW-92-7****Chloride (mg/l)**

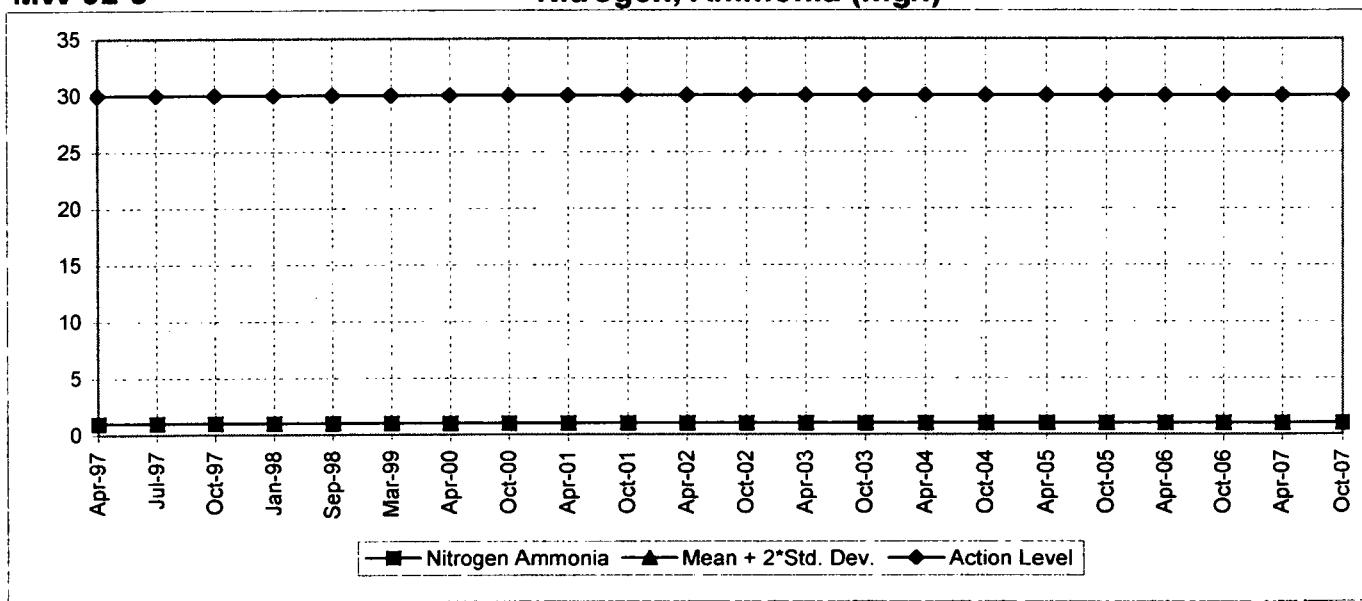
MW-92-2

Nitrogen, Ammonia (mg/l)



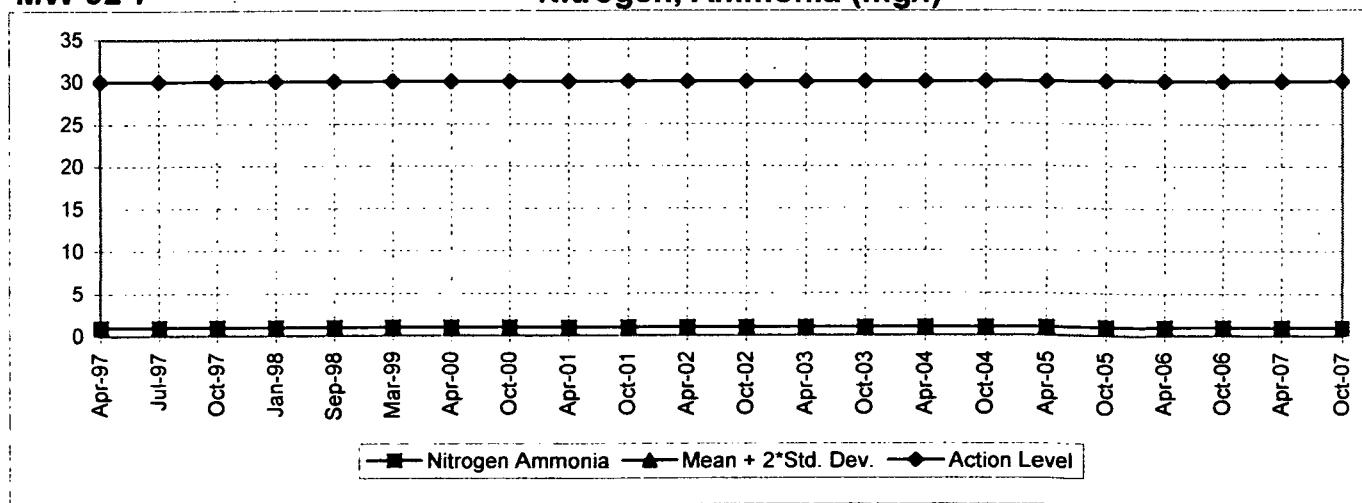
MW-92-5

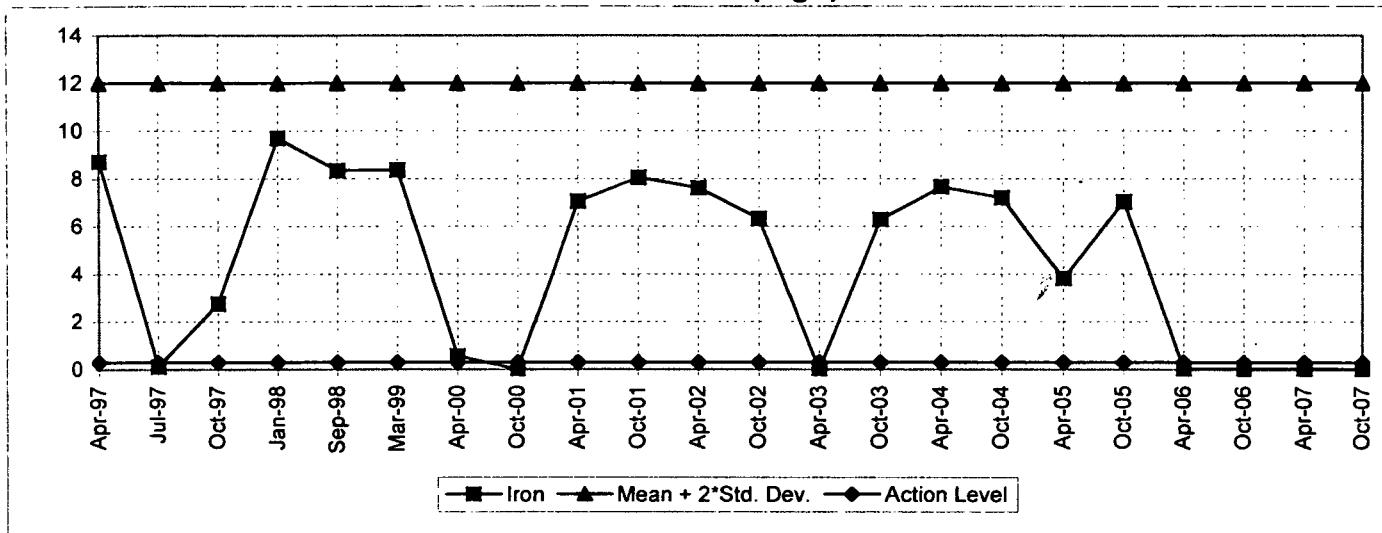
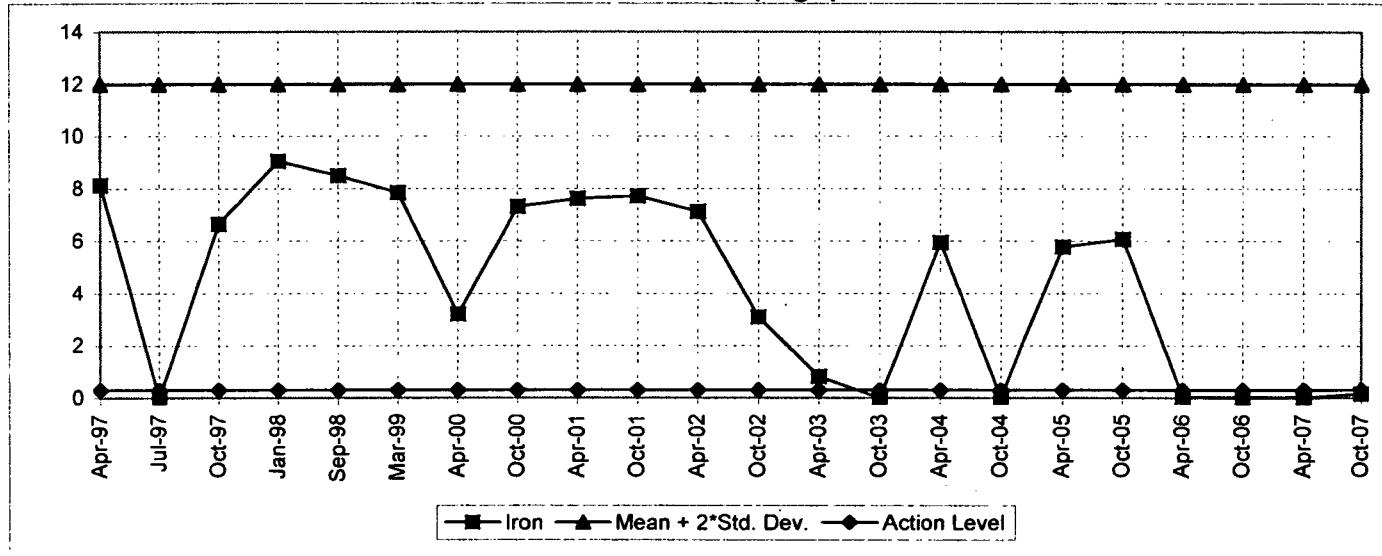
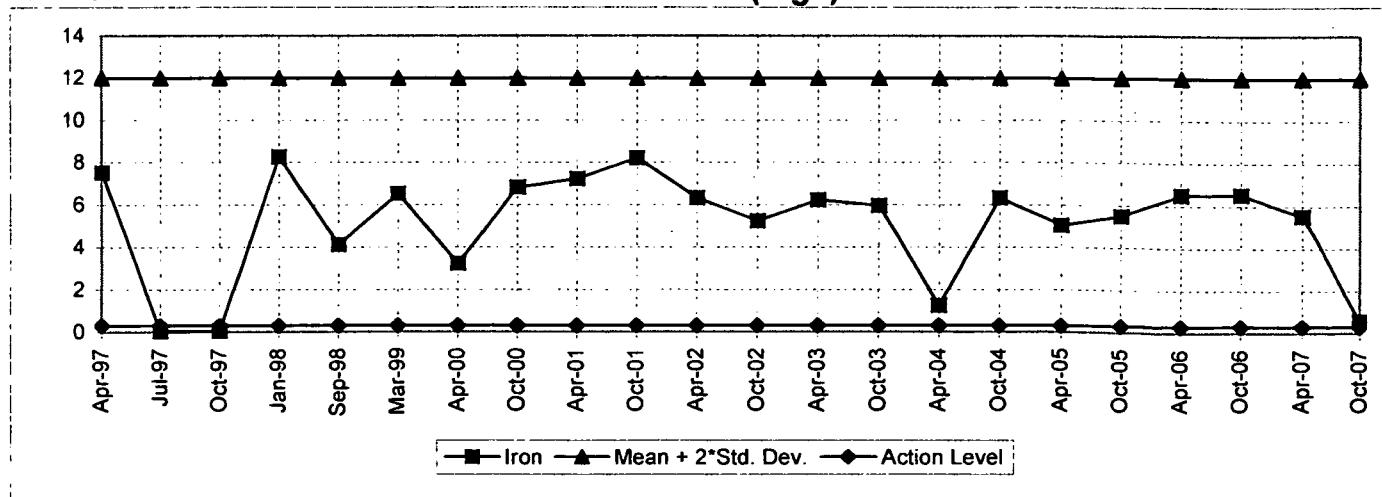
Nitrogen, Ammonia (mg/l)



MW-92-7

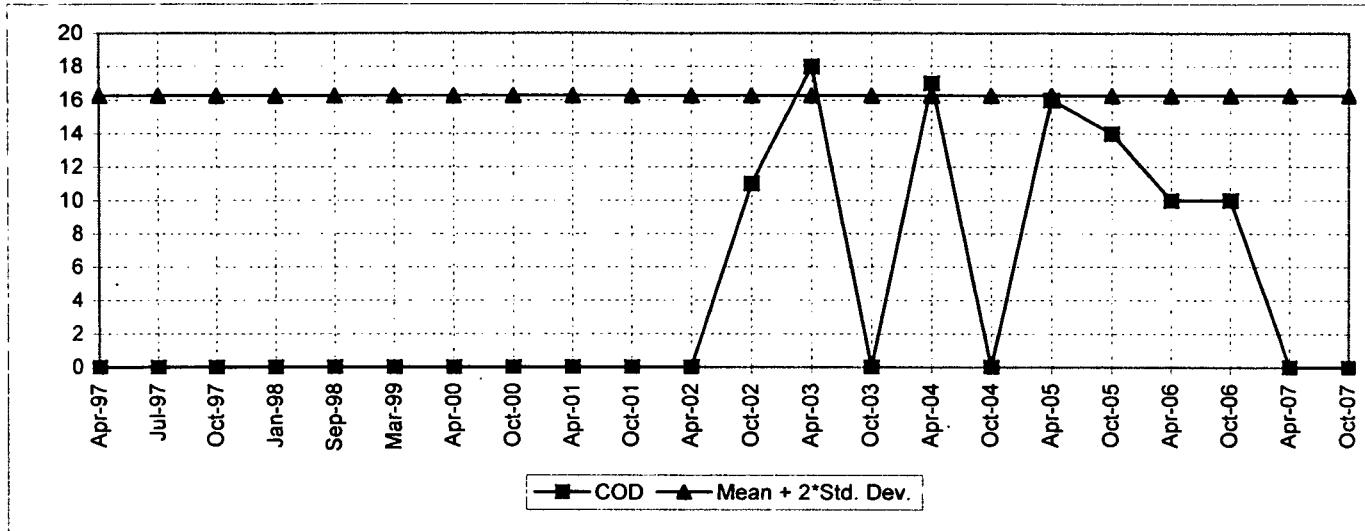
Nitrogen, Ammonia (mg/l)



MW-92-2**Iron (mg/l)****MW-92-5****Iron (mg/l)****MW-92-7****Iron (mg/l)**

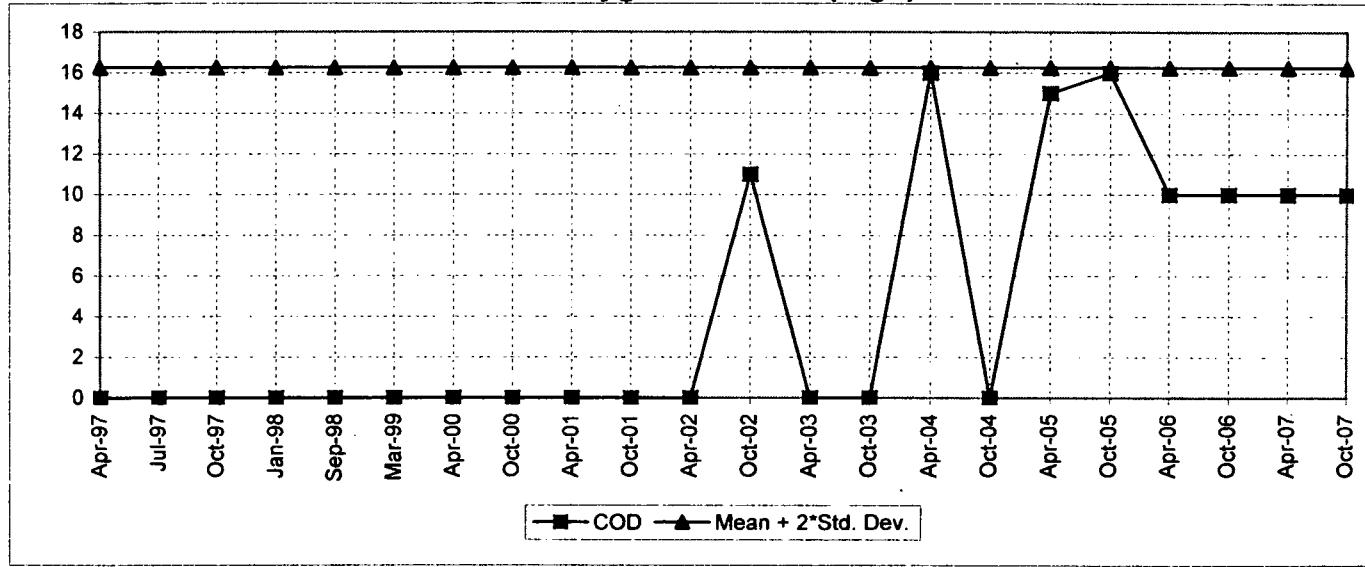
MW-92-2

Chemical Oxygen Demand (mg/l)



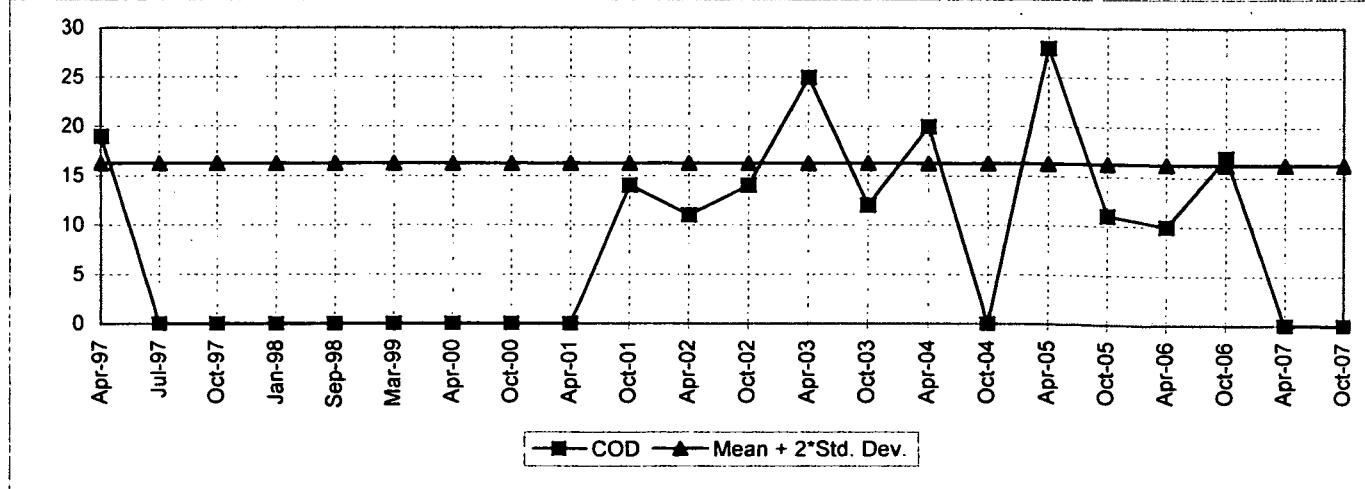
MW-92-5

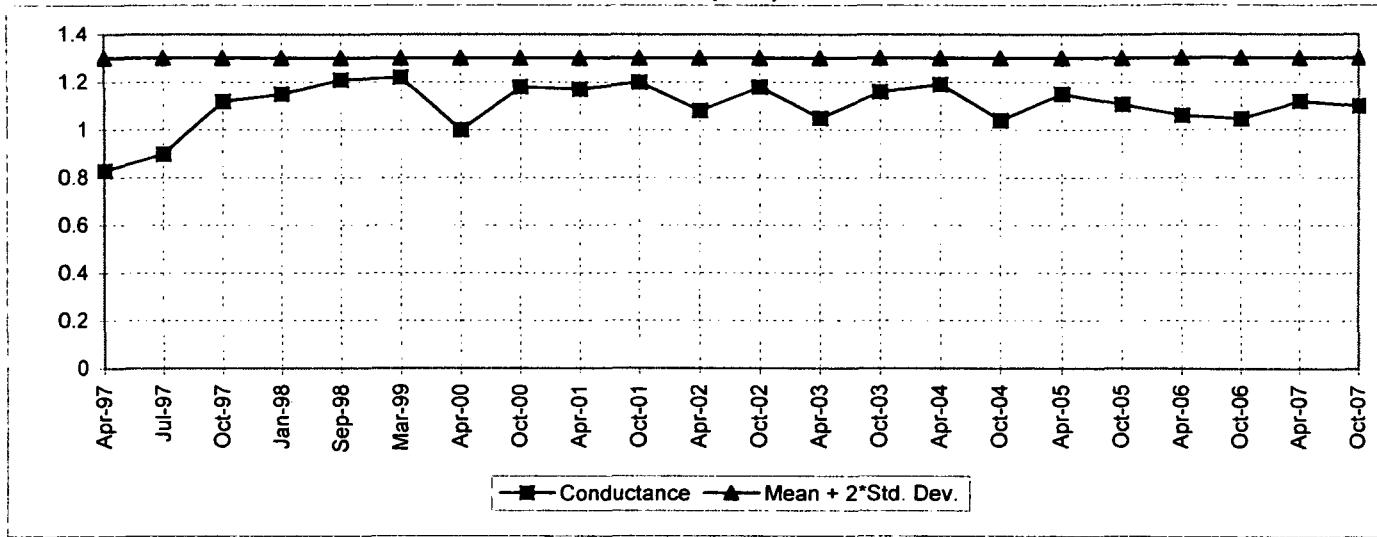
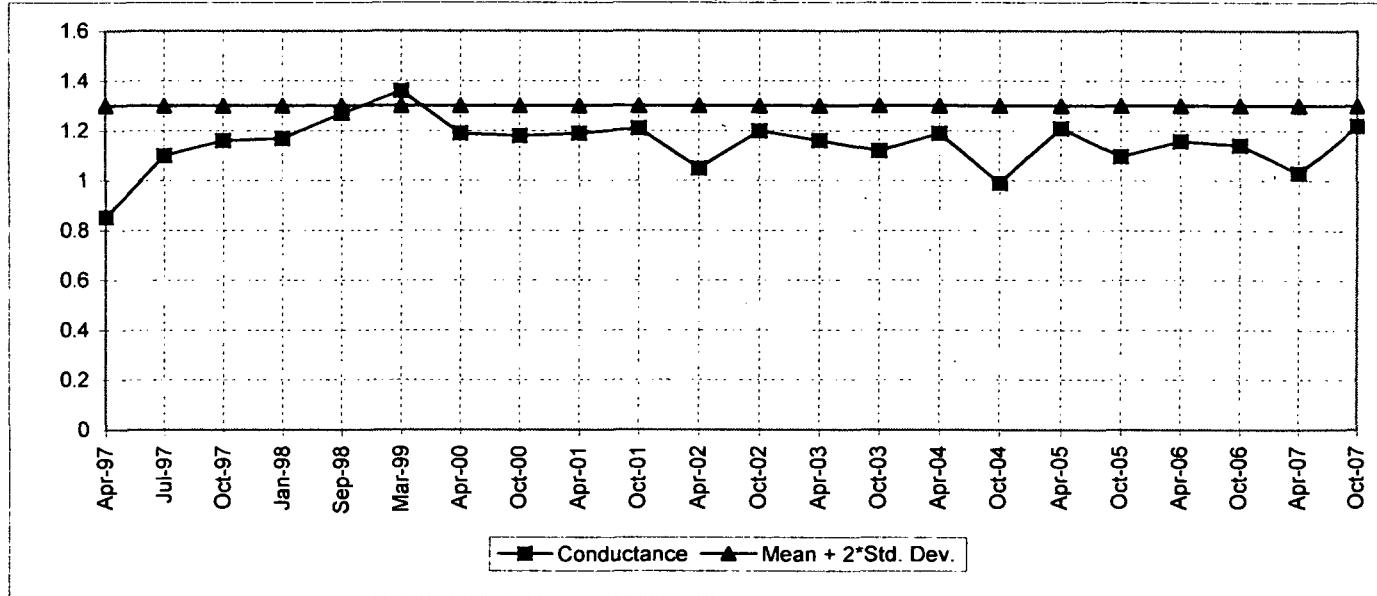
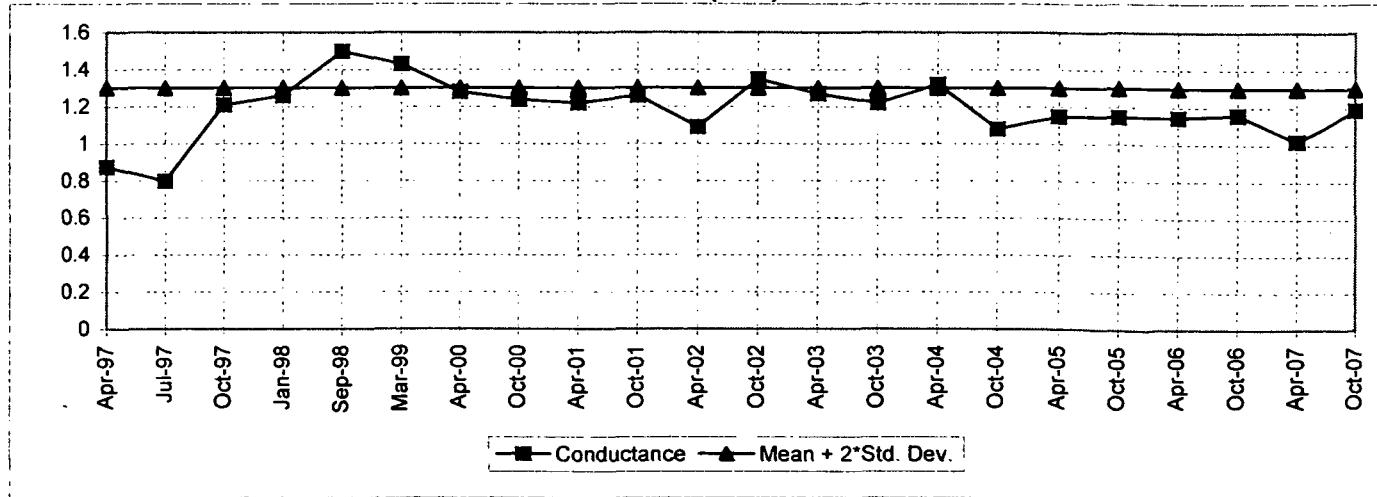
Chemical Oxygen Demand (mg/l)

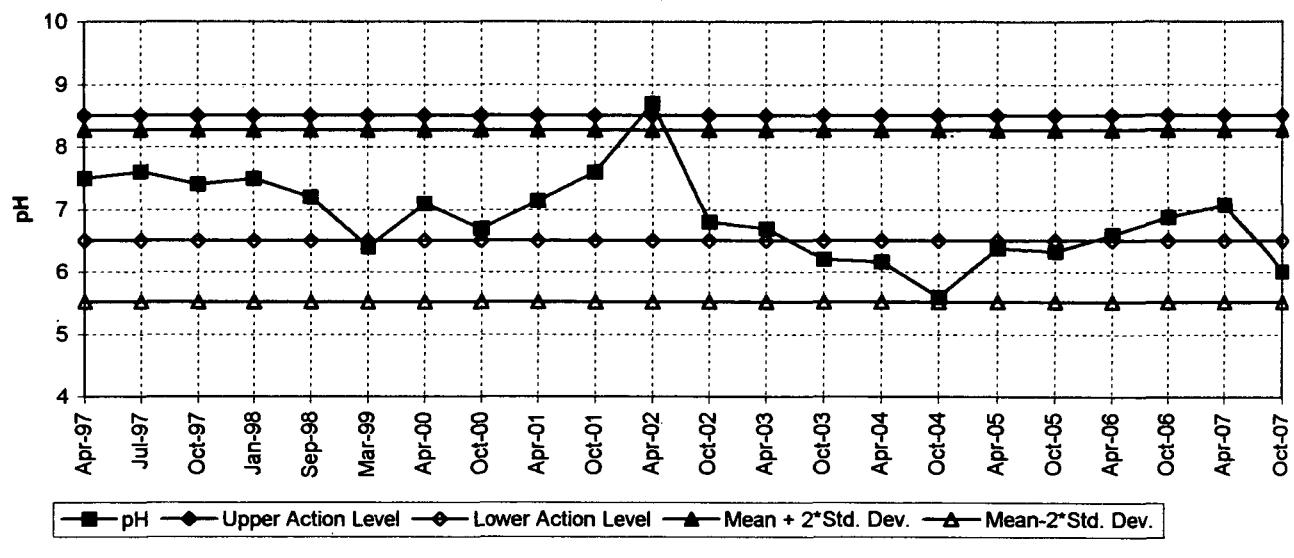
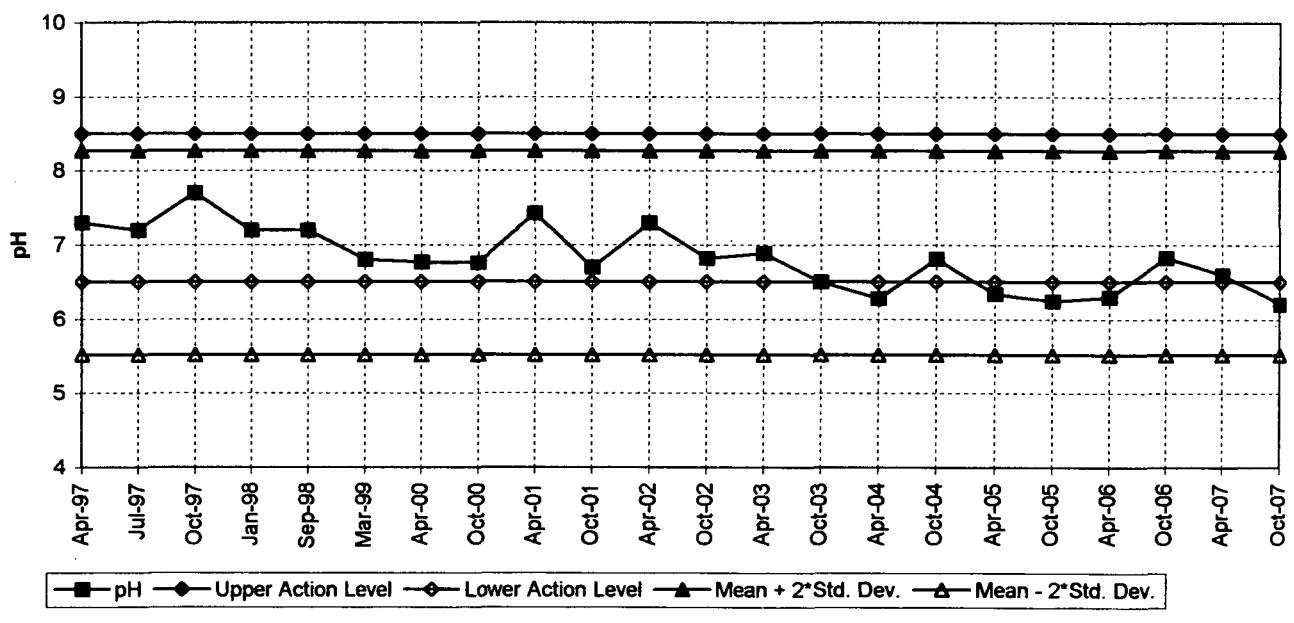
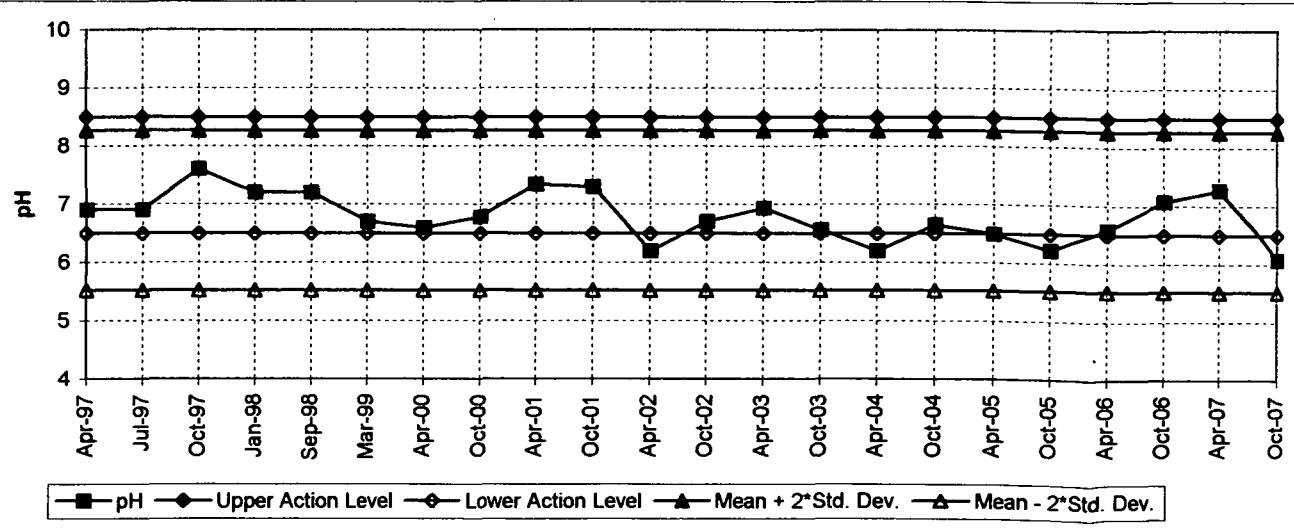


MW-92-7

Chemical Oxygen Demand (mg/l)

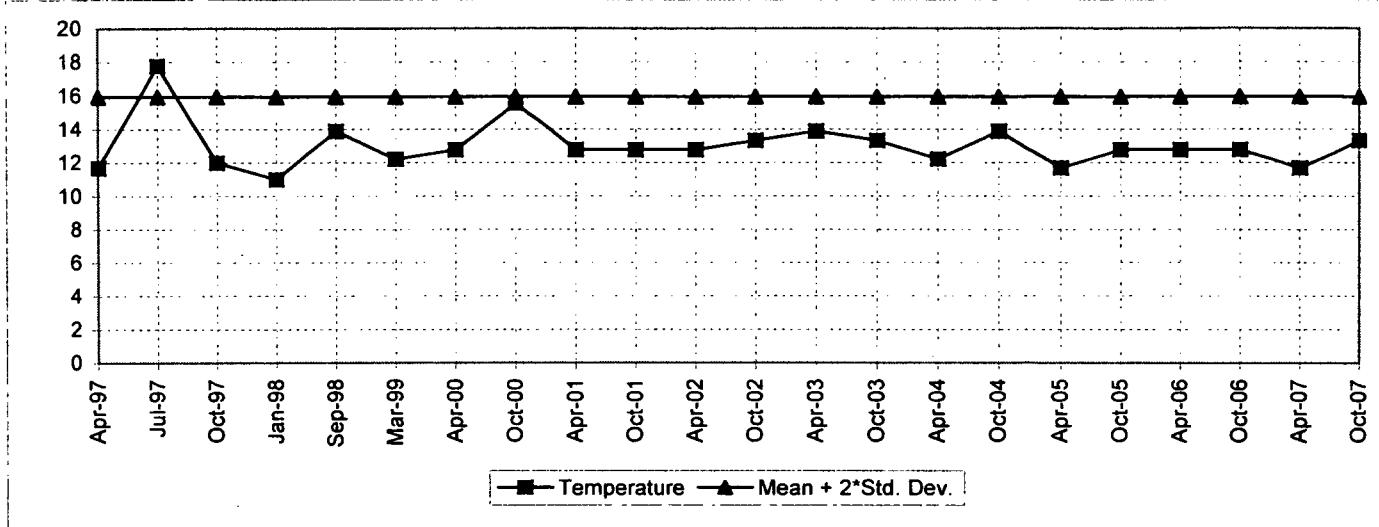


MW-92-2**Conductance (mS)****MW-92-5****Conductance (mS)****MW-92-7****Conductance (mS)**

MW-92-2**pH****MW-92-5****pH****MW-92-7****pH**

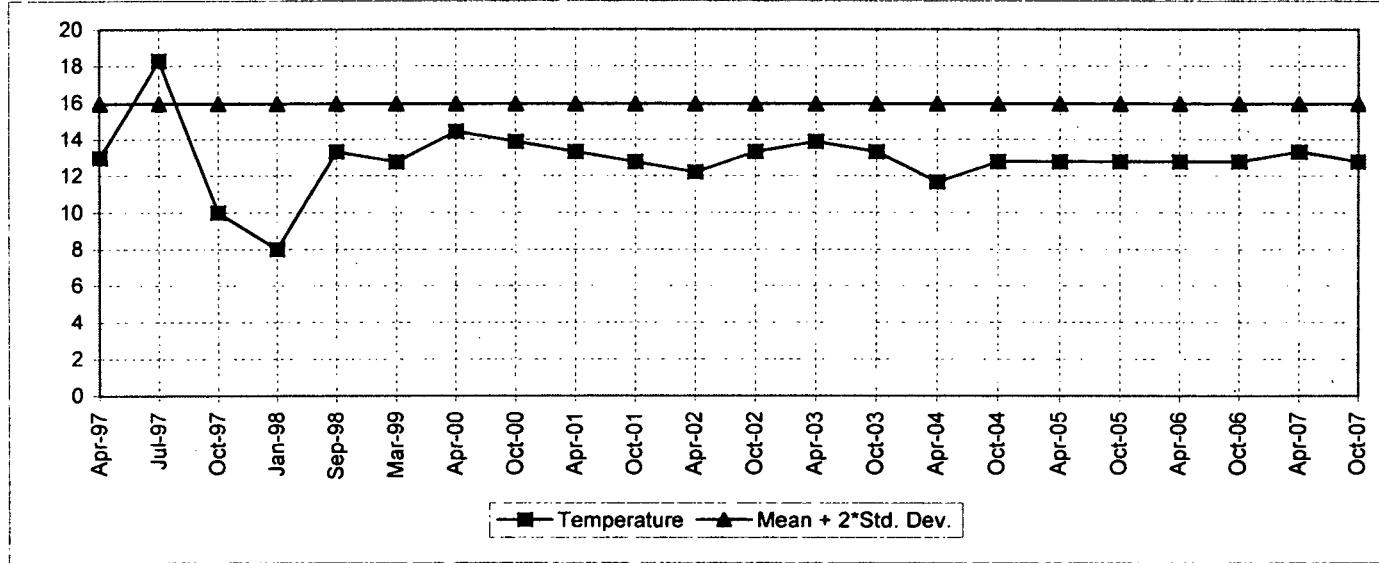
MW-92-2

Temperature (C)



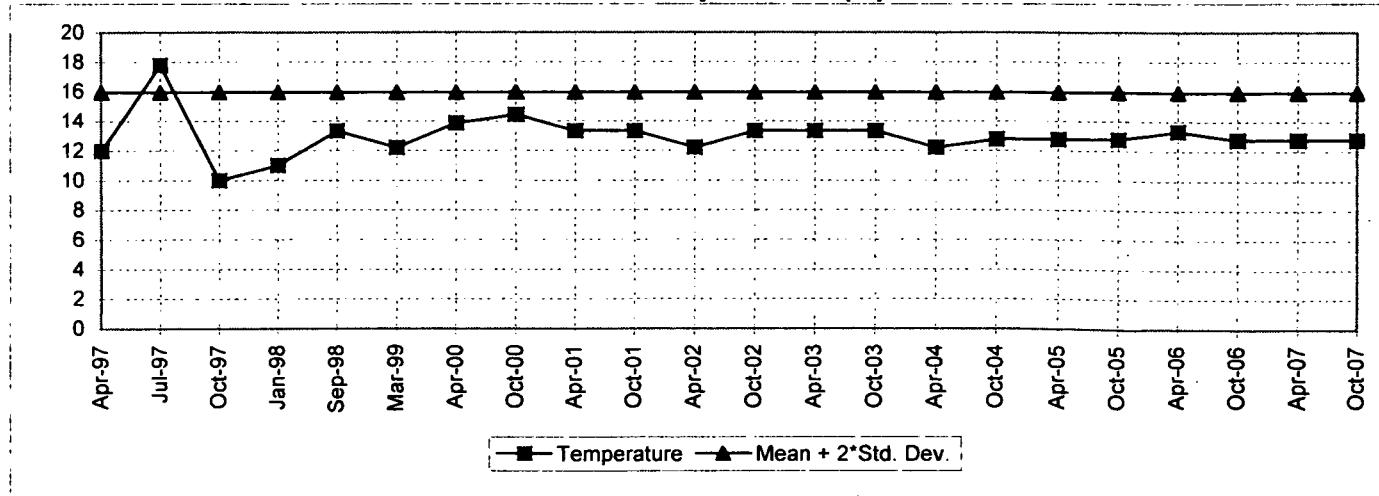
MW-92-5

Temperature (C)



MW-92-7

Temperature (C)



SURFACE WATER SAMPLING RESULTS - 1997 to 2007
Arsenic, Dissolved (mg/L)

Date	SW-1
Apr-97	0.0013
Jul-97	0.002
Oct-97	0.0029
Jan-98	0.003
Mar-99	<0.001

Upgradient Mean + 2(Standard Deviation) = **0.0039** Action Level = 0.001 dNRL

Barium, Dissolved (mg/l)

Date	SW-1
Apr-97	0.11
Jul-97	0.05
Oct-97	0.099
Jan-98	0.076
Mar-99	0.048

Upgradient Mean + 2(Standard Deviation) = **0.1327** Action Level = 2 fHAL

Magnesium, Dissolved (mg/l)

Date	SW-1
Apr-97	0.68
Jul-97	4
Oct-97	0.25
Jan-98	0.3
Mar-99	2.06

Upgradient Mean + 2(Standard Deviation) = **4.6564** Action Level = None

Zinc, Dissolved (mg/l)

Date	SW-1
Apr-97	<0.03
Jul-97	0.031
Oct-97	0.033
Jan-98	<0.03
Mar-99	<0.03

Upgradient Mean + 2(Standard Deviation) = **0.0334** Action Level = 2 fHAL

Chloride (mg/l)

Date	SW-1
Apr-97	54
Jul-97	52
Oct-97	51
Jan-98	56
Sep-98	47.5
Mar-99	51
Apr-00	46
Oct-00	41
Apr-01	46
Oct-01	48
Apr-02	44
Oct-02	45
Apr-03	51
Oct-03	47
Apr-04	49
Oct-04	49
Apr-05	61
Oct-05	64
Apr-06	81
Oct-06	68
Apr-07	54
Oct-07	43

Upgradient Mean + 2(Standard Deviation) = **70.79** Action Level = **250 fSMCL**

Nitrogen, Ammonia (mg/l)

Date	SW-1
Apr-97	<1
Jul-97	<1
Oct-97	<1
Jan-98	<1
Sep-98	<1
Mar-99	<1
Apr-00	<1
Oct-00	<1
Apr-01	<1
Oct-01	<1
Apr-02	<1
Oct-02	<1
Apr-03	<1
Oct-03	<1
Apr-04	<1
Oct-04	<1
Apr-05	<1
Oct-05	<1
Apr-06	<1
Oct-06	<1
Apr-07	<1
Oct-07	<1

Upgradient Mean + 2(Standard Deviation) = **1.0000** Action Level = **30 f action level**

Iron, Dissolved (mg/l)

Date	SW-1
Apr-97	0.033
Jul-97	0.035
Oct-97	<0.03
Jan-98	<0.035
Sep-98	<0.03
Mar-99	0.052
Apr-00	<0.03
Oct-00	<0.03
Apr-01	0.082
Oct-01	<0.03
Apr-02	<0.03
Oct-02	0.032
Apr-03	<0.030
Oct-03	<0.030
Apr-04	<0.03
Oct-04	<0.03
Apr-05	0.104
Oct-05	0.085
Apr-06	0.083
Oct-06	0.378
Apr-07	0.087
Oct-07	0.105

Upgradient Mean + 2(Standard Deviation) = **0.215** Action Level = **0.3 f action level**

Chemical Oxygen Demand (mg/l)

Date	SW-1
Apr-97	27
Jul-97	21
Oct-97	11
Jan-98	27
Sep-98	<10
Mar-99	10.5
Apr-00	<10
Oct-00	18
Apr-01	13
Oct-01	<10
Apr-02	11
Oct-02	23
Apr-03	29
Oct-03	15
Apr-04	26
Oct-04	<10
Apr-05	<10
Oct-05	16
Apr-06	10
Oct-06	33
Apr-07	<10
Oct-07	<10

Upgradient Mean + 2(Standard Deviation) = **31.83** Action Level = **None**

Conductance (mS)

Date	SW-1
Apr-97	0.54
Jul-97	0.58
Oct-97	0.63
Jan-98	0.54
Sep-98	0.50
Mar-99	0.54
Apr-00	0.53
Oct-00	0.49
Apr-01	0.51
Oct-01	0.57
Apr-02	0.48
Oct-02	0.81
Apr-03	0.93
Oct-03	0.86
Apr-04	0.88
Oct-04	1.25
Apr-05	1.23
Oct-05	0.64
Apr-06	0.65
Oct-06	0.57
Apr-07	0.55
Oct-07	0.48

Upgradient Mean + 2(Standard Deviation) = **1.13** Action Level = None

pH

Date	SW-1
Apr-97	11.4
Jul-97	10.1
Oct-97	11.2
Jan-98	11.8
Sep-98	9.5
Mar-99	9.8
Apr-00	9.8
Oct-00	6.2
Apr-01	8.7
Oct-01	8.3
Apr-02	11.3
Oct-02	11.22
Apr-03	11.34
Oct-03	10.65
Apr-04	10.29
Oct-04	9.42
Apr-05	9.16
Oct-05	9.77
Apr-06	10.02
Oct-06	10.43
Apr-07	9.11
Oct-07	8.09

Upgradient Mean + 2(Standard Deviation) = **12.55** Upper Action Level = 8.5 fSMCL
 Upgradient Mean - 2(Standard Deviation) = **7.23** Lower Action Level = 6.5 fSMCL

Temperature (C)

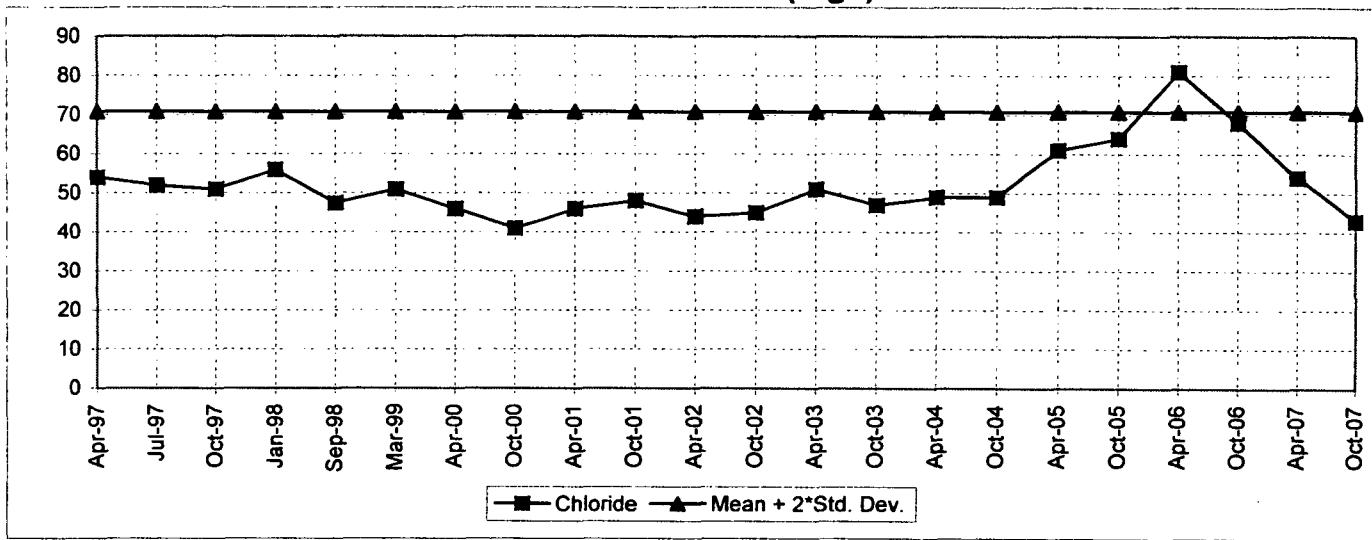
Date	SW-1
Apr-97	12.00
Jul-97	26.70
Oct-97	14.00
Jan-98	0.00
Sep-98	24.40
Mar-99	8.33
Apr-00	18.88
Oct-00	17.77
Apr-01	17.77
Oct-01	12.78
Apr-02	14.44
Oct-02	13.88
Apr-03	14.44
Oct-03	12.77
Apr-04	15.56
Oct-04	16.11
Apr-05	13.88
Oct-05	19.44
Apr-06	18.89
Oct-06	11.11
Apr-07	15.56
Oct-07	15.00

Upgradient Mean + 2(Standard Deviation) = **25.85**

Action Level = **None**

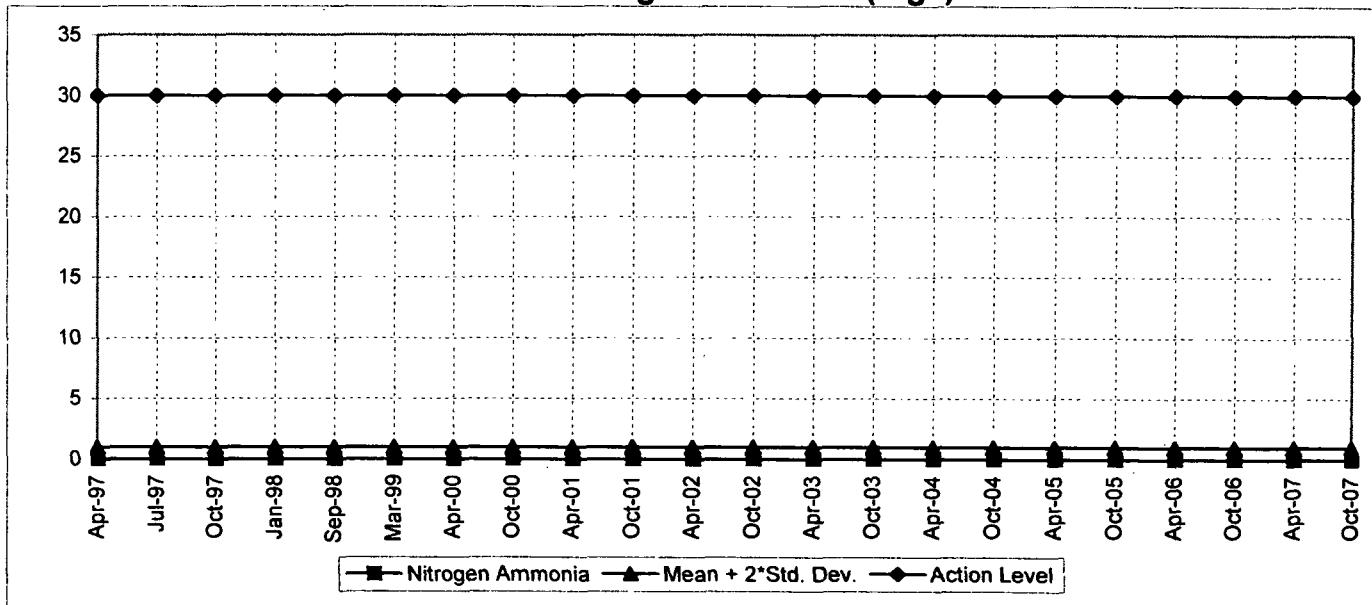
SW-1

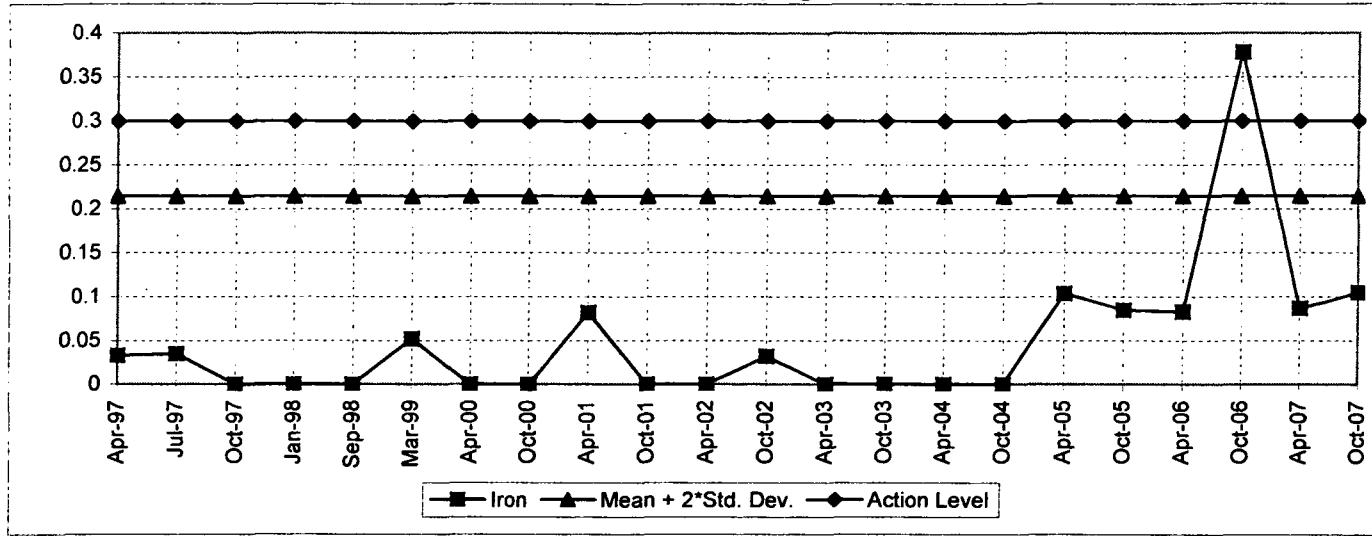
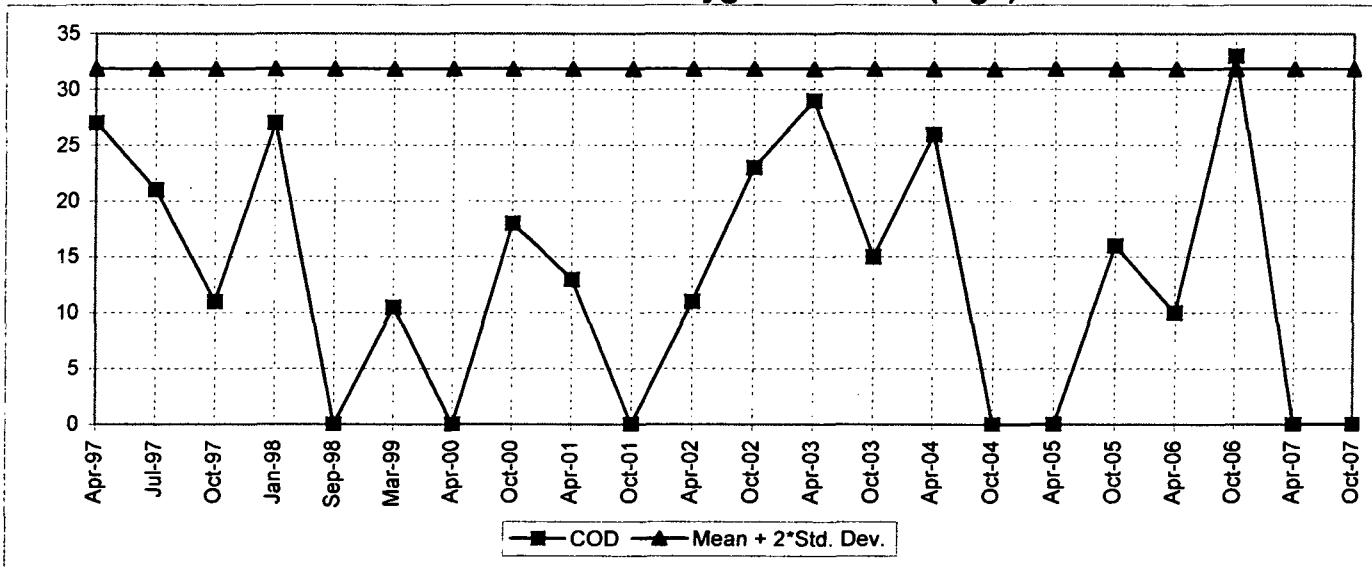
Chloride (mg/l)

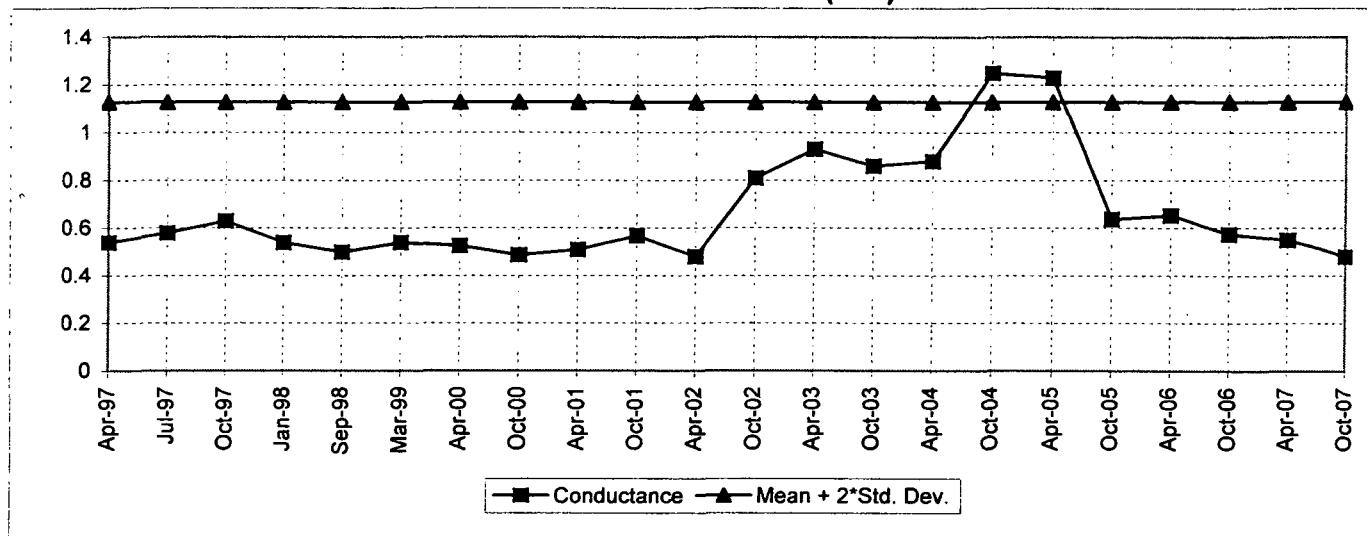
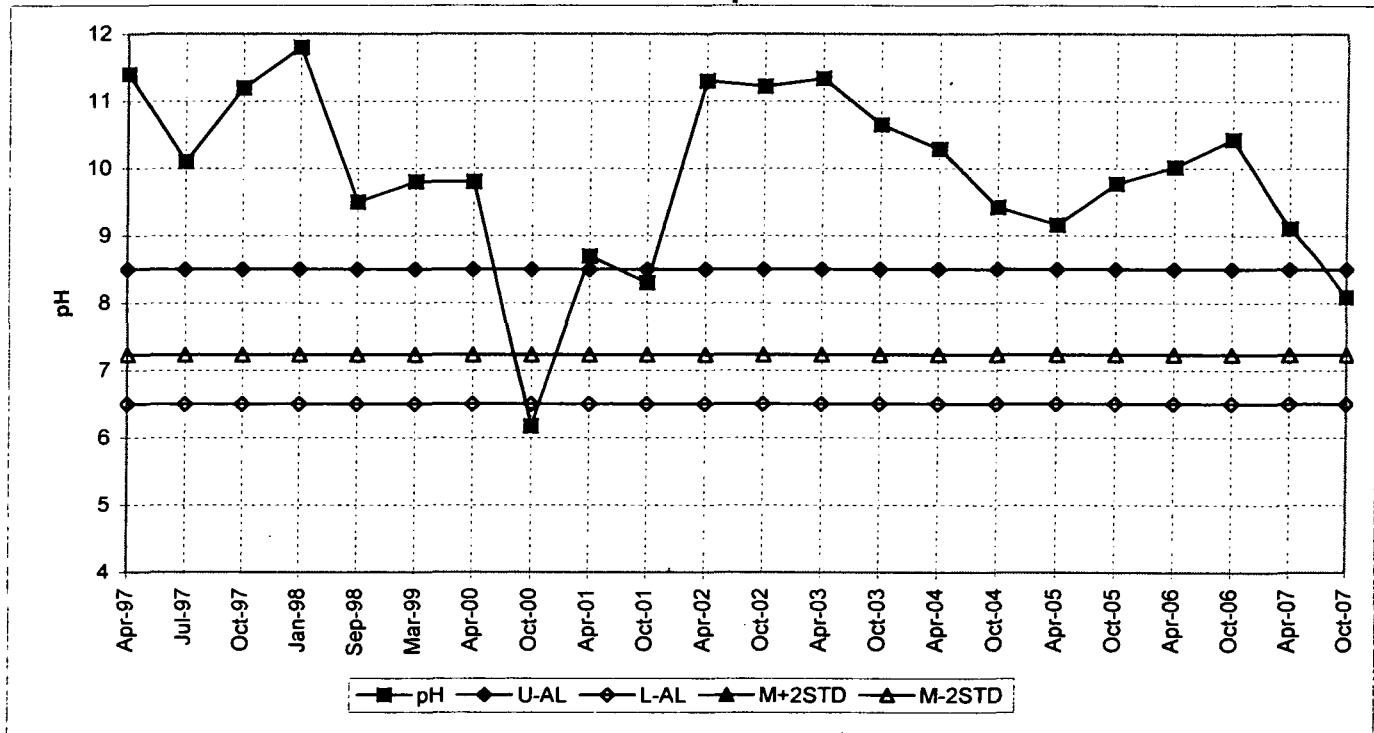


SW-1

Nitrogen Ammonia (mg/l)

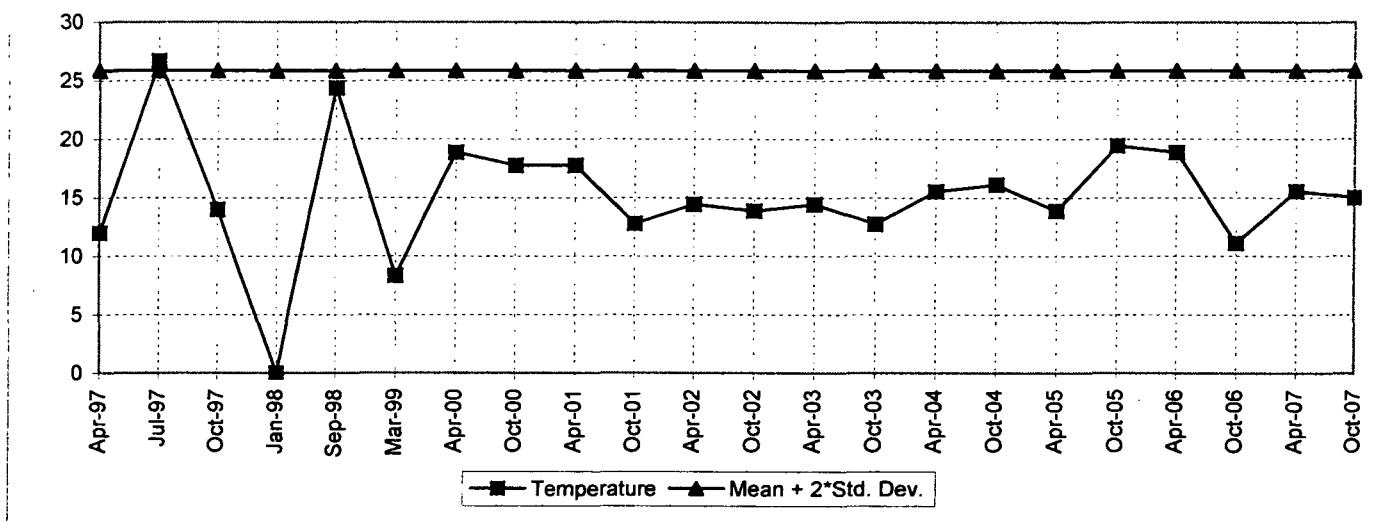


SW-1**Iron (mg/l)****SW-1****Chemical Oxygen Demand (mg/l)**

SW-1**Conductance (mS)****SW-1****pH**

SW-1

Temperature (C)



APPENDIX - 4
IDNR SAMPLING FORMS

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-1 Upgradient X
Downgradient _____

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation: Top of inner well casing 796.82 Ground Elevation 794.78
Depth of well 26.6' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>4/27/07 @ 16:05</u>	<u>16.78</u>	<u>780.04</u>
After Purging	<u>4/27/07 @ 16:20</u>	<u>16.78</u>	_____
Before Sampling	<u>4/27/07 @ 16:25</u>	<u>16.78</u>	_____

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 5
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type <u>Disposable</u>	Dedicated Bailer? <u>Yes</u>
Pump type _____	Dedicated Pump? _____
If not dedicated, method of cleaning _____	

***D. FIELD MEASUREMENT**

Weather Conditions Partly cloudy 60s

Field Measurements (after stabilization):

Temperature <u>53</u>	Units <u>°F</u>
Equipment used <u>Glass Thermometer</u>	
pH <u>6.80</u>	
Equipment used <u>pH Tester II</u>	
Specific Conductivity <u>1132</u>	Units <u>µs/cm</u>
Equipment used <u>Orion 124 (make & model)</u>	

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-1R Upgradient X
Downgradient _____

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 789.92 Ground Elevation 789.64
Depth of well 24.08' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>4/27/07 @ 14:00</u>	<u>4.54</u>	<u>785.38</u>
After Purging	<u>4/27/07 @ 14:20</u>	<u>4.54</u>	<u></u>
Before Sampling	<u>4/27/07 @ 14:25</u>	<u>4.54</u>	<u></u>

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 9.5
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type <u>Disposable</u>	Dedicated Bailer? <u>Yes</u>
Pump type _____	Dedicated Pump? _____
If not dedicated, method of cleaning _____	

***D. FIELD MEASUREMENT**

Weather Conditions Partly cloudy 60s

Field Measurements (after stabilization):

Temperature <u>51</u>	Units <u>°F</u>
Equipment used <u>Glass Thermometer</u>	
pH <u>9.17</u>	
Equipment used <u>pH Tester II</u>	
Specific Conditions <u>574</u>	Units <u>µs/cm</u>
Equipment used <u>Orion 124 (make & model)</u>	

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-2 Upgradient X
Downgradient _____

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 797.47 Ground Elevation 794.78
Depth of well 62.5' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>4/27/07 @ 15:05</u>	<u>17.46</u>	<u>780.01</u>
After Purging	<u>4/27/07 @ 15:45</u>	<u>17.46</u>	
Before Sampling	<u>4/27/07 @ 15:50</u>	<u>17.46</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 21.5
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type	<u>Disposable</u>	Dedicated Bailer?	<u>Yes</u>
Pump type	<u> </u>	Dedicated Pump?	<u> </u>
If not dedicated, method of cleaning _____			

***D. FIELD MEASUREMENT**

Weather Conditions Partly cloudy 60s

Field Measurements (after stabilization):

Temperature	<u>53</u>	Units	<u>°F</u>
Equipment used	<u>Glass Thermometer</u>		
pH	<u>7.08</u>		
Equipment used	<u>pH Tester II</u>		
Specific Conditions	<u>1124</u>	Units	<u>µs/cm</u>
Equipment used	<u>Orion 124 (make & model)</u>		

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-3 Upgradient _____
Downgradient _____

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 797.70 Ground Elevation 797.12
Depth of well 25.6' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>4/27/07 @ 13:15</u>	<u>18.02</u>	<u>779.68</u>
After Purging	<u>4/27/07 @ 13:30</u>	<u>18.02</u>	_____
Before Sampling	<u>4/27/07 @ 13:35</u>	<u>18.02</u>	_____

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 4.0
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type <u>Disposable</u>	Dedicated Bailer? <u>Yes</u>
Pump type _____	Dedicated Pump? _____
If not dedicated, method of cleaning _____	_____

***D. FIELD MEASUREMENT**

Weather Conditions Sunny 60s

Field Measurements (after stabilization):

Temperature <u>55</u>	Units <u>°F</u>
Equipment used <u>Glass Thermometer</u>	_____
pH <u>6.59</u>	_____
Equipment used <u>pH Tester II</u>	_____
Specific Conditions <u>1320</u>	Units <u>µs/cm</u>
Equipment used <u>Orion 124 (make & model)</u>	_____

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-4 Upgradient _____
Downgradient X

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 799.27 Ground Elevation 798.69
Depth of well 29.9' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>4/27/07 @ 12:20</u>	<u>19.88</u>	<u>779.21</u>
After Purging	<u>4/27/07 @ 12:40</u>	<u>19.88</u>	
Before Sampling	<u>4/27/07 @ 12:45</u>	<u>19.88</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 5
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type <u>Disposable</u>	Dedicated Bailer? <u>Yes</u>
Pump type _____	Dedicated Pump? _____
If not dedicated, method of cleaning _____	

***D. FIELD MEASUREMENT**

Weather Conditions Sunny 60s

Field Measurements (after stabilization):

Temperature <u>56</u>	Units <u>°F</u>
Equipment used <u>Glass Thermometer</u>	
pH <u>6.44</u>	
Equipment used <u>pH Tester II</u>	
Specific Conductivity <u>910</u>	Units <u>µs/cm</u>
Equipment used <u>Orion 124 (make & model)</u>	

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-5 Upgradient _____
Downgradient X

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 799.52 Ground Elevation 798.69
Depth of well 68.1' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>4/27/07 @ 11:00</u>	<u>20.23</u>	<u>779.29</u>
After Purging	<u>4/27/07 @ 12:00</u>	<u>20.23</u>	_____
Before Sampling	<u>4/27/07 @ 12:05</u>	<u>20.23</u>	_____

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 23
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type <u>Disposable</u>	Dedicated Bailer? <u>Yes</u>
Pump type _____	Dedicated Pump? _____
If not dedicated, method of cleaning _____	

***D. FIELD MEASUREMENT**

Weather Conditions Sunny 60s

Field Measurements (after stabilization):

Temperature <u>56</u>	Units <u>°F</u>
Equipment used <u>Glass Thermometer</u>	
pH <u>6.57</u>	
Equipment used <u>pH Tester II</u>	
Specific Conditions <u>1030</u>	Units <u>µs/cm</u>
Equipment used <u>Orion 124 (make & model)</u>	

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-6 Upgradient _____
Downgradient X

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 801.38 Ground Elevation 799.01
Depth of well 33.4' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>4/27/07 @ 8:40</u>	<u>22.59</u>	<u>778.79</u>
After Purging	<u>4/27/07 @ 9:00</u>	<u>22.59</u>	
Before Sampling	<u>4/27/07 @ 9:10</u>	<u>22.59</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 5.5
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type <u>Disposable</u>	Dedicated Bailer? <u>Yes</u>
Pump type _____	Dedicated Pump? _____
If not dedicated, method of cleaning _____	

***D. FIELD MEASUREMENT**

Weather Conditions Sunny 50s

Field Measurements (after stabilization):

Temperature <u>55</u>	Units <u>°F</u>
Equipment used <u>Glass Thermometer</u>	
pH <u>7.01</u>	
Equipment used <u>pH Tester II</u>	
Specific Conductivity <u>870</u>	Units <u>µs/cm</u>
Equipment used <u>Orion 124 (make & model)</u>	

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-7 Upgradient _____
Downgradient X

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 801.50 Ground Elevation 799.01
Depth of well 69.4' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>4/27/07 @ 9:30</u>	<u>22.29</u>	<u>779.21</u>
After Purging	<u>4/27/07 @ 10:30</u>	<u>22.29</u>	
Before Sampling	<u>4/27/07 @ 10:35</u>	<u>22.29</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 23
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type <u>Disposable</u>	Dedicated Bailer? <u>Yes</u>
Pump type _____	Dedicated Pump? _____
If not dedicated, method of cleaning _____	

***D. FIELD MEASUREMENT**

Weather Conditions Sunny 50s

Field Measurements (after stabilization):

Temperature <u>55</u>	Units <u>°F</u>
Equipment used <u>Glass Thermometer</u>	
pH <u>7.27</u>	
Equipment used <u>pH Tester II</u>	
Specific Conditions <u>1020</u>	Units <u>µs/cm</u>
Equipment used <u>Orion 124 (make & model)</u>	

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR
SURFACE WATER SAMPLING**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P
 Surface Monitoring point No. SW-1 Date/Time 4/27/07 @ 14:50
 Name of Person Sampling Wayne Shannon

A. TYPE OF MONITORING POINT

Stream	<u> </u>	Open Tile	<u> </u>
Road Ditch	<u> </u>	Tile with Riser	<u> </u>
Drainage Ditch	<u> </u>	Other	<u>Pond</u>

B. PURPOSE OF MONITORING POINT

Upstream	<u> </u>	Downstream	<u> </u>
Within Landfill	<u>X</u>	Other	<u> </u>

C. MOINITORING POINT CONDITIONS

General description/condition of monitoring point Dirt & concrete fill

Was monitoring point dry?	<u>No</u>	Too little water to sample?	<u>No</u>
Was water flowing?	<u>No</u>	If yes, estimate quantity	<u> </u>
		If yes, estimate depth	<u> </u>

Was water discolored?	<u>No</u>	If yes, describe below.
Does water have odor?	<u>No</u>	If yes, describe below.
Was ground discolored?	<u>No</u>	If yes, describe below.
Litter present?	<u>No</u>	If yes, describe below.

Comments _____

D. FIELD MEASUREMENTS

Weather Conditions Cloudy 60's

Field Measurements (after stabilization):

Temperature	<u>60</u>	Units	<u>°F</u>
Equipment used	<u>Glass Thermometer</u>		
pH	<u>9.11</u>		
Equipment used	<u>pH Tester II</u>		
Specific Conditions	<u>552</u>	Units	<u>µs/cm</u>
Equipment used	<u>Orion (make) 124 (model)</u>		

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-1 Upgradient X
Downgradient _____

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation: Top of inner well casing 796.82 Ground Elevation 794.78
Depth of well 26.6' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>10/16/07 @ 15:25</u>	<u>17.00</u>	<u>779.82</u>
After Purging	<u>10/16/07 @ 15:40</u>	<u>17.00</u>	
Before Sampling	<u>10/16/07 @ 15:45</u>	<u>17.00</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 5
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type <u>Disposable</u>	Dedicated Bailer? <u>Yes</u>
Pump type _____	Dedicated Pump? _____
If not dedicated, method of cleaning _____	

***D. FIELD MEASUREMENT**

Weather Conditions Cloudy 50s

Field Measurements (after stabilization):

Temperature <u>57</u>	Units <u>°F</u>
Equipment used <u>Glass Thermometer</u>	
pH <u>5.85</u>	
Equipment used <u>pH Tester II</u>	
Specific Conditions <u>1223</u>	Units <u>µs/cm</u>
Equipment used <u>Orion 124 (make & model)</u>	

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-1R Upgradient X
Downgradient _____

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 789.92 Ground Elevation 789.64
Depth of well 24.08' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>10/16/07 @ 14:10</u>	<u>1.68</u>	<u>788.24</u>
After Purging	<u>10/16/07 @ 14:20</u>	<u>1.68</u>	
Before Sampling	<u>10/16/07 @ 14:25</u>	<u>1.68</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 11
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type	<u>Disposable</u>	Dedicated Bailer?	<u>Yes</u>
Pump type	<u> </u>	Dedicated Pump?	<u> </u>
If not dedicated, method of cleaning _____			

***D. FIELD MEASUREMENT**

Weather Conditions Cloudy 50s

Field Measurements (after stabilization):

Temperature	<u>59</u>	Units	<u>°F</u>
Equipment used	<u>Glass Thermometer</u>		
pH	<u>8.53</u>		
Equipment used	<u>pH Tester II</u>		
Specific Conditions	<u>501</u>	Units	<u>µs/cm</u>
Equipment used	<u>Orion 124 (make & model)</u>		

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-2 Upgradient X
Downgradient _____

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 797.47 Ground Elevation 779.79
Depth of well 62.5' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>10/16/07 @ 16:10</u>	<u>17.68</u>	<u>779.79</u>
After Purging	<u>10/16/07 @ 16:40</u>	<u>17.68</u>	
Before Sampling	<u>10/16/07 @ 16:45</u>	<u>17.68</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 21.5
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type	<u>Disposable</u>	Dedicated Bailer?	<u>Yes</u>
Pump type	<u></u>	Dedicated Pump?	<u></u>
If not dedicated, method of cleaning _____			

***D. FIELD MEASUREMENT**

Weather Conditions Cloudy 50s

Field Measurements (after stabilization):

Temperature	<u>56</u>	Units	<u>°F</u>
Equipment used	<u>Glass Thermometer</u>		
pH	<u>6.01</u>		
Equipment used	<u>pH Tester II</u>		
Specific Conditions	<u>1107</u>	Units	<u>µs/cm</u>
Equipment used	<u>Orion 124 (make & model)</u>		

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-3 Upgradient _____
Downgradient _____

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 797.70 Ground Elevation 797.12
Depth of well 25.6' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>10/16/07 @ 13:20</u>	<u>18.56</u>	<u>779.14</u>
After Purging	<u>10/16/07 @ 13:30</u>	<u>18.56</u>	
Before Sampling	<u>10/16/07 @ 13:35</u>	<u>18.56</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 3.5
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type <u>Disposable</u>	Dedicated Bailer? <u>Yes</u>
Pump type _____	Dedicated Pump? _____
If not dedicated, method of cleaning _____	

***D. FIELD MEASUREMENT**

Weather Conditions Cloudy mist 50s

Field Measurements (after stabilization):

Temperature <u>56</u>	Units <u>°F</u>
Equipment used <u>Glass Thermometer</u>	
pH <u>5.77</u>	
Equipment used <u>pH Tester II</u>	
Specific Conditions <u>1423</u>	Units <u>µs/cm</u>
Equipment used <u>Orion 124 (make & model)</u>	

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-4 Upgradient _____
Downgradient X

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 799.09 Ground Elevation 798.69
Depth of well 29.9' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>10/16/07 @ 11:15</u>	<u>20.32</u>	<u>778.77</u>
After Purging	<u>10/16/07 @ 11:30</u>	<u>20.32</u>	
Before Sampling	<u>10/16/07 @ 11:35</u>	<u>20.32</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 5
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type Disposable Dedicated Bailer? Yes
Pump type _____ Dedicated Pump? _____
If not dedicated, method of cleaning _____

***D. FIELD MEASUREMENT**

Weather Conditions Cloudy mist 50s

Field Measurements (after stabilization):

Temperature	<u>55</u>	Units <u>°F</u>
Equipment used	<u>Glass Thermometer</u>	
pH	<u>5.95</u>	
Equipment used	<u>pH Tester II</u>	
Specific Conditions	<u>1396</u>	Units <u>µs/cm</u>
Equipment used	<u>Orion 124 (make & model)</u>	

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-5 Upgradient _____
Downgradient X

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 799.52 Ground Elevation 798.69
Depth of well 68.1' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>10/16/07 @ 12:00</u>	<u>20.68</u>	<u>778.84</u>
After Purging	<u>10/16/07 @ 12:35</u>	<u>20.68</u>	
Before Sampling	<u>10/16/07 @ 12:40</u>	<u>20.68</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 22
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type <u>Disposable</u>	Dedicated Bailer? <u>Yes</u>
Pump type _____	Dedicated Pump? _____
If not dedicated, method of cleaning _____	

***D. FIELD MEASUREMENT**

Weather Conditions Cloudy mist 50s

Field Measurements (after stabilization):

Temperature <u>55</u>	Units <u>°F</u>
Equipment used <u>Glass Thermometer</u>	
pH <u>6.20</u>	
Equipment used <u>pH Tester II</u>	
Specific Conductance <u>1217</u>	Units <u>µs/cm</u>
Equipment used <u>Orion 124 (make & model)</u>	

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-6 Upgradient _____
Downgradient X

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 801.38 Ground Elevation 799.01
Depth of well 33.4' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>10/16/07 @ 9:15</u>	<u>22.65</u>	<u>778.73</u>
After Purging	<u>10/16/07 @ 9:30</u>	<u>22.65</u>	
Before Sampling	<u>10/16/07 @ 9:35</u>	<u>22.65</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 5.5
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type	<u>Disposable</u>	Dedicated Bailer?	<u>Yes</u>
Pump type	<u> </u>	Dedicated Pump?	<u> </u>
If not dedicated, method of cleaning _____			

***D. FIELD MEASUREMENT**

Weather Conditions Cloudy mist 50s

Field Measurements (after stabilization):

Temperature	<u>55</u>	Units	<u>°F</u>
Equipment used	<u>Glass Thermometer</u>		
pH	<u>6.90</u>		
Equipment used	<u>pH Tester II</u>		
Specific Conditions	<u>1572</u>	Units	<u>µs/cm</u>
Equipment used	<u>Orion 124 (make & model)</u>		

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR GROUNDWATER SAMPLING AND/OR
GROUNDWATER ELEVATION MEASUREMENT**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P

Monitoring Well/Piezometer No. MW-92-7 Upgradient _____
Downdrain X

Name of person sampling Wayne Shanon

A. MONITORING WELL/PIEZOMETER CONDITIONS

Well/Piezometer Properly Capped? Yes Standing Water or Litter No
If no, explain _____ If yes, explain _____

B. GROUNDWATER ELEVATIONN MEASUREMENT (+/- 0.01 FOOT, MSL)

Elevation : Top of inner well casing 801.50 Ground Elevation 799.01
Depth of well 69.4' Inside Casing Diameter (in inches) 2
Equipment Used Slope Water Level Indicator, Model 51453

Groundwater Level (+/- 0.01 foot below top of inner casing, MSL):

	Date/Time	Depth to Groundwater	Groundwater Elevation
Before Purging	<u>10/16/07 @ 9:55</u>	<u>22.76</u>	<u>778.74</u>
After Purging	<u>10/16/07 @ 10:25</u>	<u>22.76</u>	
Before Sampling	<u>10/16/07 @ 10:30</u>	<u>22.76</u>	

***C. WELL PURGING**

Quantity of Water Removed from Well (gallons) 23
No. of Well Volumes (based on current water level) 3
Was the well pumped/bailed dry? No

Equipment used:

Bailer type	<u>Disposable</u>	Dedicated Bailer?	<u>Yes</u>
Pump type	<u> </u>	Dedicated Pump?	<u> </u>
If not dedicated, method of cleaning _____			

***D. FIELD MEASUREMENT**

Weather Conditions Cloudy mist 50s

Field Measurements (after stabilization):

Temperature	<u>55</u>	Units	<u>°F</u>
Equipment used	<u>Glass Thermometer</u>		
pH	<u>6.08</u>		
Equipment used	<u>pH Tester II</u>		
Specific Conditions	<u>1192</u>	Units	<u>µs/cm</u>
Equipment used	<u>Orion 124 (make & model)</u>		

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

**FORM FOR
SURFACE WATER SAMPLING**

Site Name Concrete Supply Construction Rubble Site Permit No. 77-SDP-86P
Surface Monitoring point No. SW-1 Date/Time 10/16/07 @ 15:05
Name of Person Sampling Wayne Shannon

A. TYPE OF MONITORING POINT

Stream	<u> </u>	Open Tile	<u> </u>
Road Ditch	<u> </u>	Tile with Riser	<u> </u>
Drainage Ditch	<u> </u>	Other	<u>Pond</u>

B. PURPOSE OF MONITORING POINT

Upstream	<u> </u>	Downstream	<u> </u>
Within Landfill	<u>X</u>	Other	<u> </u>

C. MOINITORING POINT CONDITIONS

General description/condition of monitoring point Dirt & concrete fill

Was monitoring point dry? No Too little water to sample? No
Was water flowing? No If yes, estimate quantity _____
If yes, estimate depth _____

Was water discolored? No If yes, describe below.
Does water have odor? No If yes, describe below.
Was ground discolored? No If yes, describe below.
Litter present? No If yes, describe below.

Comments _____

D. FIELD MEASUREMENTS

Weather Conditions Cloudy 50's

Field Measurements (after stabilization):

Temperature	<u>59</u>	Units	<u>°F</u>
Equipment used	<u>Glass Thermometer</u>		
pH	<u>8.09</u>		
Equipment used	<u>pH Tester II</u>		
Specific Conditions	<u>480</u>	Units	<u>µs/cm</u>
Equipment used	<u>Orion (make) 124 (model)</u>		

Comments _____

NOTE: Attach Laboratory Report and 8-12" x 11" site plan showing locations of all surface and groundwater monitoring points. One map per sampling round.

*Omit if only measuring groundwater elevations

APPENDIX - 5
LABORATORY REPORTS

Accreditations:
Iowa DNR: 095
New Jersey DEP: IA001
Kansas DHE: E-10287

ANALYTICAL REPORT

May 05, 2007

Work Order: 17D1380

Page 1 of 5

Report To
Chandra Shekar Shekar Engineering 8938 Highland Oaks Drive Johnston, IA 50131

Work Order Information
Date Received: 04/27/2007 5:30PM Collector: Wayne Shannon Phone: 515-334-5062 PO Number:

Project: Concrete Supply Landfill
Project Number: [none]

Analyte	Result	MRL	Method	Analyst	Analyzed	Qualifier
17D1380-01 MW-92-1			Matrix: Water		Collected: 04/27/07 16:30	
<i>Determination of Volatile Organic Compounds</i>						
Trichloroethylene	3.6 ug/l	1.0	EPA 8260B	TVK	05/01/07 16:46	
Surrogate: Dibromofluoromethane	107 %		60-140	TVK	05/01/07 16:46	
Surrogate: 1,2-Dichloroethane-d4	105 %		69-133	TVK	05/01/07 16:46	
Surrogate: Toluene-d8	106 %		76-122	TVK	05/01/07 16:46	
Surrogate: 4-Bromofluorobenzene	100 %		74-126	TVK	05/01/07 16:46	
<i>Determination of Conventional Chemistry Parameters</i>						
Chemical Oxygen Demand	<10 mg/l	10	EPA 410.4	WAS	05/03/07 13:04	
Chloride	56 mg/l	10	USGS I-1184-85	WAS	05/01/07 7:40	
Nitrogen, Ammonia	<1.0 mg/l	1.0	SM 4500-NH3 F	SAA	05/01/07 14:06	
<i>Determination of Dissolved Metals</i>						
Iron, dissolved	<0.030 mg/l	0.030	EPA 6010B	LAR	04/30/07 14:26	
17D1380-02 MW-92-1R			Matrix: Water		Collected: 04/27/07 14:30	
<i>Determination of Volatile Organic Compounds</i>						
Trichloroethylene	<1.0 ug/l	1.0	EPA 8260B	TVK	05/01/07 17:26	
Surrogate: Dibromofluoromethane	107 %		60-140	TVK	05/01/07 17:26	
Surrogate: 1,2-Dichloroethane-d4	105 %		69-133	TVK	05/01/07 17:26	
Surrogate: Toluene-d8	106 %		76-122	TVK	05/01/07 17:26	
Surrogate: 4-Bromofluorobenzene	99.8 %		74-126	TVK	05/01/07 17:26	
<i>Determination of Conventional Chemistry Parameters</i>						
Chemical Oxygen Demand	<10 mg/l	10	EPA 410.4	WAS	05/03/07 13:04	
Chloride	37 mg/l	10	USGS I-1184-85	WAS	05/01/07 7:40	
Nitrogen, Ammonia	<1.0 mg/l	1.0	SM 4500-NH3 F	SAA	05/01/07 14:06	
<i>Determination of Dissolved Metals</i>						
Iron, dissolved	0.059 mg/l	0.030	EPA 6010B	LAR	04/30/07 14:30	
17D1380-03 MW-92-2			Matrix: Water		Collected: 04/27/07 15:50	
<i>Determination of Volatile Organic Compounds</i>						
Trichloroethylene	6.1 ug/l	1.0	EPA 8260B	TVK	05/01/07 18:07	

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MRL = Method Reporting Limit.

Shekar Engineering
8938 Highland Oaks Drive
Johnston, IA 50131

May 05, 2007

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Work Order: 17D1380

Analyte	Result	MRL	Method	Analyst	Analyzed	Qualifier
17D1380-03 MW-92-2			Matrix: Water		Collected: 04/27/07 15:50	
<i>Determination of Volatile Organic Compounds</i>						
Surrogate: Dibromofluoromethane	108 %		60-140	TVK	05/01/07 18:07	
Surrogate: 1,2-Dichloroethane-d4	107 %		69-133	TVK	05/01/07 18:07	
Surrogate: Toluene-d8	105 %		76-122	TVK	05/01/07 18:07	
Surrogate: 4-Bromofluorobenzene	98.0 %		74-126	TVK	05/01/07 18:07	
<i>Determination of Conventional Chemistry Parameters</i>						
Chemical Oxygen Demand	<10 mg/l	10	EPA 410.4	WAS	05/03/07 13:04	
Chloride	49 mg/l	10	USGS I-1184-85	WAS	05/01/07 7:40	
Nitrogen, Ammonia	<1.0 mg/l	1.0	SM 4500-NH3 F	SAA	05/01/07 14:06	
<i>Determination of Dissolved Metals</i>						
Iron, dissolved	<0.030 mg/l	0.030	EPA 6010B	LAR	04/30/07 14:34	
17D1380-04 MW-92-3			Matrix: Water		Collected: 04/27/07 13:40	
<i>Determination of Volatile Organic Compounds</i>						
Trichloroethylene	<1.0 ug/l	1.0	EPA 8260B	TVK	05/02/07 1:22	
Surrogate: Dibromofluoromethane	110 %		60-140	TVK	05/02/07 1:22	
Surrogate: 1,2-Dichloroethane-d4	107 %		69-133	TVK	05/02/07 1:22	
Surrogate: Toluene-d8	106 %		76-122	TVK	05/02/07 1:22	
Surrogate: 4-Bromofluorobenzene	100 %		74-126	TVK	05/02/07 1:22	
<i>Determination of Conventional Chemistry Parameters</i>						
Chemical Oxygen Demand	<10 mg/l	10	EPA 410.4	WAS	05/03/07 13:04	
Chloride	29 mg/l	10	USGS I-1184-85	WAS	05/01/07 7:40	
Nitrogen, Ammonia	<1.0 mg/l	1.0	SM 4500-NH3 F	SAA	05/01/07 14:06	
<i>Determination of Dissolved Metals</i>						
Iron, dissolved	<0.030 mg/l	0.030	EPA 6010B	LAR	04/30/07 14:39	
17D1380-05 MW-92-4			Matrix: Water		Collected: 04/27/07 12:50	
<i>Determination of Volatile Organic Compounds</i>						
Trichloroethylene	<1.0 ug/l	1.0	EPA 8260B	TVK	05/02/07 2:01	
Surrogate: Dibromofluoromethane	109 %		60-140	TVK	05/02/07 2:01	
Surrogate: 1,2-Dichloroethane-d4	107 %		69-133	TVK	05/02/07 2:01	
Surrogate: Toluene-d8	107 %		76-122	TVK	05/02/07 2:01	
Surrogate: 4-Bromofluorobenzene	102 %		74-126	TVK	05/02/07 2:01	
<i>Determination of Conventional Chemistry Parameters</i>						
Chemical Oxygen Demand	<10 mg/l	10	EPA 410.4	WAS	05/03/07 13:04	
Chloride	61 mg/l	10	USGS I-1184-85	WAS	05/01/07 7:40	
Nitrogen, Ammonia	<1.0 mg/l	1.0	SM 4500-NH3 F	SAA	05/01/07 14:06	

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Johnston, IA 50131

May 05, 2007
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Work Order: 17D1380

Analyte	Result	MRL	Method	Analyst	Analyzed	Qualifier
17D1380-05 MW-92-4 <i>Determination of Dissolved Metals</i>			Matrix:Water		Collected: 04/27/07 12:50	
Iron, dissolved	<0.030 mg/l	0.030	EPA 6010B	LAR	04/30/07 14:43	
<hr/>						
17D1380-06 MW-92-5 <i>Determination of Volatile Organic Compounds</i>			Matrix:Water		Collected: 04/27/07 12:10	
Trichloroethylene	<1.0 ug/l	1.0	EPA 8260B	TVK	05/02/07 2:40	
Surrogate: Dibromofluoromethane	109 %		60-140	TVK	05/02/07 2:40	
Surrogate: 1,2-Dichloroethane-d4	107 %		69-133	TVK	05/02/07 2:40	
Surrogate: Toluene-d8	105 %		76-122	TVK	05/02/07 2:40	
Surrogate: 4-Bromofluorobenzene	101 %		74-126	TVK	05/02/07 2:40	
<hr/>						
<i>Determination of Conventional Chemistry Parameters</i>						
Chemical Oxygen Demand	<10 mg/l	10	EPA 410.4	WAS	05/03/07 13:04	
Chloride	37 mg/l	10	USGS I-1184-85	WAS	05/01/07 7:40	
Nitrogen, Ammonia	<1.0 mg/l	1.0	SM 4500-NH3 F	SAA	05/01/07 14:06	
<hr/>						
<i>Determination of Dissolved Metals</i>						
Iron, dissolved	<0.030 mg/l	0.030	EPA 6010B	LAR	04/30/07 14:47	
<hr/>						
17D1380-07 MW-92-6 <i>Determination of Volatile Organic Compounds</i>			Matrix:Water		Collected: 04/27/07 09:15	
Trichloroethylene	<1.0 ug/l	1.0	EPA 8260B	TVK	05/02/07 3:19	
Surrogate: Dibromofluoromethane	109 %		60-140	TVK	05/02/07 3:19	
Surrogate: 1,2-Dichloroethane-d4	105 %		69-133	TVK	05/02/07 3:19	
Surrogate: Toluene-d8	105 %		76-122	TVK	05/02/07 3:19	
Surrogate: 4-Bromofluorobenzene	102 %		74-126	TVK	05/02/07 3:19	
<hr/>						
<i>Determination of Conventional Chemistry Parameters</i>						
Chemical Oxygen Demand	<10 mg/l	10	EPA 410.4	WAS	05/03/07 13:04	
Chloride	50 mg/l	10	USGS I-1184-85	WAS	05/01/07 7:40	
Nitrogen, Ammonia	<1.0 mg/l	1.0	SM 4500-NH3 F	SAA	05/01/07 14:06	
<hr/>						
<i>Determination of Dissolved Metals</i>						
Iron, dissolved	0.044 mg/l	0.030	EPA 6010B	LAR	04/30/07 14:51	
<hr/>						
17D1380-08 MW-92-7 <i>Determination of Volatile Organic Compounds</i>			Matrix:Water		Collected: 04/27/07 10:35	
Trichloroethylene	<1.0 ug/l	1.0	EPA 8260B	TVK	05/02/07 3:58	
Surrogate: Dibromofluoromethane	109 %		60-140	TVK	05/02/07 3:58	
Surrogate: 1,2-Dichloroethane-d4	105 %		69-133	TVK	05/02/07 3:58	
Surrogate: Toluene-d8	107 %		76-122	TVK	05/02/07 3:58	
Surrogate: 4-Bromofluorobenzene	104 %		74-126	TVK	05/02/07 3:58	

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Shekar Engineering
8938 Highland Oaks Drive
Johnston, IA 50131

May 05, 2007

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Work Order: 17D1380

Analyte	Result	MRL	Method	Analyst	Analyzed	Qualifier
17D1380-08 MW-92-7			Matrix:Water		Collected: 04/27/07 10:35	
<i>Determination of Conventional Chemistry Parameters</i>						
Chemical Oxygen Demand	<10 mg/l	10	EPA 410.4	WAS	05/03/07 13:04	
Chloride	63 mg/l	10	USGS I-1184-85	WAS	05/01/07 7:40	
Nitrogen, Ammonia	<1.0 mg/l	1.0	SM 4500-NH3 F	SAA	05/01/07 14:06	
<i>Determination of Dissolved Metals</i>						
Iron, dissolved	5.54 mg/l	0.030	EPA 6010B	LAR	04/30/07 14:56	
17D1380-09 SW-1			Matrix:Water		Collected: 04/27/07 14:50	
<i>Determination of Volatile Organic Compounds</i>						
Trichloroethylene	<1.0 ug/l	1.0	EPA 8260B	TVK	05/02/07 4:36	
Surrogate: Dibromofluoromethane	110 %	60-140		TVK	05/02/07 4:36	
Surrogate: 1,2-Dichloroethane-d4	107 %	69-133		TVK	05/02/07 4:36	
Surrogate: Toluene-d8	105 %	76-122		TVK	05/02/07 4:36	
Surrogate: 4-Bromofluorobenzene	100 %	74-126		TVK	05/02/07 4:36	
<i>Determination of Conventional Chemistry Parameters</i>						
Chemical Oxygen Demand	<10 mg/l	10	EPA 410.4	WAS	05/03/07 13:04	
Chloride	54 mg/l	10	USGS I-1184-85	WAS	05/01/07 7:40	
Nitrogen, Ammonia	<1.0 mg/l	1.0	SM 4500-NH3 F	SAA	05/01/07 14:06	
<i>Determination of Dissolved Metals</i>						
Iron, dissolved	0.087 mg/l	0.030	EPA 6010B	LAR	04/30/07 15:00	
17D1380-10 Duplicate			Matrix:Water		Collected: 04/27/07 00:00	
<i>Determination of Volatile Organic Compounds</i>						
Trichloroethylene	<1.0 ug/l	1.0	EPA 8260B	TVK	05/02/07 7:10	
Surrogate: Dibromofluoromethane	110 %	60-140		TVK	05/02/07 7:10	
Surrogate: 1,2-Dichloroethane-d4	108 %	69-133		TVK	05/02/07 7:10	
Surrogate: Toluene-d8	106 %	76-122		TVK	05/02/07 7:10	
Surrogate: 4-Bromofluorobenzene	99.8 %	74-126		TVK	05/02/07 7:10	
<i>Determination of Conventional Chemistry Parameters</i>						
Chemical Oxygen Demand	<10 mg/l	10	EPA 410.4	WAS	05/03/07 13:04	
Chloride	64 mg/l	10	USGS I-1184-85	WAS	05/01/07 7:40	
Nitrogen, Ammonia	<1.0 mg/l	1.0	SM 4500-NH3 F	SAA	05/01/07 14:06	
<i>Determination of Dissolved Metals</i>						
Iron, dissolved	5.57 mg/l	0.030	EPA 6010B	LAR	04/30/07 15:13	

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MRL = Method Reporting Limit.

Shekar Engineering
8938 Highland Oaks Drive
Johnston, IA 50131

May 05, 2007

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Work Order: 17D1380

End of Report

Sue Thompson

Keystone Laboratories, Inc.
Sue Thompson
Project Manager I

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL = Method Reporting Limit.

CHAIN OF CUSTODY RECORD



600 E. 17th St. S.
 Newton, IA 50208
 Phone: 641-792-8451
 Fax: 641-792-7989

3012 Ansborough Ave.
 Waterloo, IA 50701
 Phone: 319-235-4440
 Fax: 319-235-2480
www.keystonelabs.com

1155 Adams, Suite 120
 Kansas City, KS 66103
 Phone: 913-321-7856
 Fax: 913-321-7937

PAGE 1 OF 1

PRINT OR TYPE INFORMATION BELOW

SAMPLER: Wayne Shannon
 SITE NAME: Concrete Supply Const.
 ADDRESS: 1108 SE 30th ST.
 CITY/ST/ZIP: Des Moines
 PHONE:

REPORT TO:
 NAME: Chandra Shakar
 COMPANY NAME: Shakar Engineering
 ADDRESS: P.O. Box 3628
 CITY/ST/ZIP: Des Moines
 PHONE: 334-5062
 FAX:

BILL TO:
 NAME: Same
 COMPANY NAME:
 ADDRESS:
 CITY/ST/ZIP:
 PHONE:
 Keystone Quote No.: _____
(If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED						LAB USE ONLY		
							Landfill	Trichloroethylene					Laboratory Work Order No.	Sample Temperature Upon Receipt: °C	Laboratory Sample Number
MW-92-1	27 Ap	16:30		6	H ₂ O	G	X	X							01
MW-92-1R		14:30		1											02
MW-92-2		15:50		1											03
MW-92-3		13:40		1											04
MW-92-4		12:50		1											05
MW-92-5		12:10		1											06
MW-92-6		9:15		1											07
MW-92-7		10:35		1											08
MW-1		14:50		1											09
Duplicate		—		1											10

Relinquished by: (Signature) <i>Wayne</i>	Date 27 Ap	Received by: (Signature)	Date	Turn-Around: <input checked="" type="checkbox"/> Standard	Rush <input type="checkbox"/>	Contact Lab Prior to Submission
	Time 5:30		Time			
Relinquished by: (Signature)	Date	Received for Lab by: (Signature) <i>SNT</i>	Date 4-27-07	Remarks:		
	Time		Time 5:30 pm			

ANALYTICAL REPORT

October 31, 2007

Page 1 of 19

Work Order: 17J0812

Report To
Chandra Shekar Shekar Engineering 8938 Highland Oaks Drive Johnston, IA 50131

Work Order Information
Date Received: 10/16/2007 6:45PM
Collector: Shannon, Wayne
Phone: 515-334-5062
PO Number:

Project : Concrete Supply Landfill

Project Number: [none]

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
17J0812-01 MW-92-1				Matrix:Water		Collected: 10/16/07 15:50	
Trichloroethylene	3.6 ug/l	1.0	IJ72222	EPA 8260B	TVK	10/20/07 6:52	
Surrogate: Dibromofluoromethane	108 %			60-140	TVK	10/20/07 6:52	
Surrogate: 1,2-Dichloroethane-d4	105 %			69-133	TVK	10/20/07 6:52	
Surrogate: Toluene-d8	109 %			76-122	TVK	10/20/07 6:52	
Surrogate: 4-Bromofluorobenzene	99.3 %			74-126	TVK	10/20/07 6:52	
Total Organic Halogens (TOX)	0.017 mg/l	0.010	IJ73140	EPA 9020	SAI	10/31/07 16:48	
Chloride	48 mg/l	10	IJ72228	USGS I-1184-85	DRB	10/22/07 14:22	
Chemical Oxygen Demand	<10 mg/l	10	IJ71829	EPA 410.4	SAA	10/19/07 7:20	
Nitrogen, Ammonia	<1.0 mg/l	1.0	IJ71805	SM 4500-NH3 F	SAA	10/18/07 14:56	
Phenols, total	<0.100 mg/l	0.100	IJ72910	EPA 9065	JAC	10/29/07 16:54	
Iron, dissolved	<0.030 mg/l	0.030	IJ71913	EPA 6010B	LAR	10/19/07 14:45	
17J0812-02 MW-92-1R				Matrix:Water		Collected: 10/16/07 14:30	
Trichloroethylene	<1.0 ug/l	1.0	IJ72222	EPA 8260B	TVK	10/20/07 7:30	
Surrogate: Dibromofluoromethane	106 %			60-140	TVK	10/20/07 7:30	
Surrogate: 1,2-Dichloroethane-d4	101 %			69-133	TVK	10/20/07 7:30	
Surrogate: Toluene-d8	109 %			76-122	TVK	10/20/07 7:30	
Surrogate: 4-Bromofluorobenzene	99.4 %			74-126	TVK	10/20/07 7:30	
Total Organic Halogens (TOX)	0.016 mg/l	0.010	IJ73141	EPA 9020	SAI	10/31/07 16:54	
Chloride	24 mg/l	10	IJ72228	USGS I-1184-85	DRB	10/22/07 14:22	
Chemical Oxygen Demand	<10 mg/l	10	IJ71829	EPA 410.4	SAA	10/19/07 7:20	
Nitrogen, Ammonia	<1.0 mg/l	1.0	IJ71805	SM 4500-NH3 F	SAA	10/18/07 14:56	
Phenols, total	<0.100 mg/l	0.100	IJ72910	EPA 9065	JAC	10/29/07 16:54	
Iron, dissolved	0.047 mg/l	0.030	IJ71913	EPA 6010B	LAR	10/19/07 14:49	
17J0812-03 MW-92-2				Matrix:Water		Collected: 10/16/07 16:45	
Trichloroethylene	4.4 ug/l	1.0	IJ72222	EPA 8260B	TVK	10/20/07 8:08	
Surrogate: Dibromofluoromethane	110 %			60-140	TVK	10/20/07 8:08	
Surrogate: 1,2-Dichloroethane-d4	105 %			69-133	TVK	10/20/07 8:08	
Surrogate: Toluene-d8	109 %			76-122	TVK	10/20/07 8:08	

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8938 Highland Oaks Drive
Johnston, IA 50131

October 31, 2007
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Work Order: 17J0812

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
17J0812-03 MW-92-2				Matrix: Water		Collected:	10/16/07 16:45
Surrogate: 4-Bromofluorobenzene	97.5 %			74-126	TVK	10/20/07 8:08	
Total Organic Halogens (TOX)	0.043 mg/l	0.010	IJ73141	EPA 9020	SAI	10/31/07 16:54	
Chloride	39 mg/l	10	IJ72228	USGS I-1184-85	DRB	10/22/07 14:22	
Chemical Oxygen Demand	<10 mg/l	10	IJ71829	EPA 410.4	SAA	10/19/07 7:20	
Nitrogen, Ammonia	<1.0 mg/l	1.0	IJ71805	SM 4500-NH3 F	SAA	10/18/07 14:56	
Phenols, total	<0.100 mg/l	0.100	IJ72910	EPA 9065	JAC	10/29/07 16:54	
Iron, dissolved	<0.030 mg/l	0.030	IJ71913	EPA 6010B	LAR	10/19/07 14:53	
17J0812-04 MW-92-3				Matrix: Water		Collected:	10/16/07 13:35
Trichloroethylene	<1.0 ug/l	1.0	IJ72222	EPA 8260B	TVK	10/20/07 8:47	
Surrogate: Dibromofluoromethane	109 %			60-140	TVK	10/20/07 8:47	
Surrogate: 1,2-Dichloroethane-d4	103 %			69-133	TVK	10/20/07 8:47	
Surrogate: Toluene-d8	108 %			76-122	TVK	10/20/07 8:47	
Surrogate: 4-Bromofluorobenzene	98.6 %			74-126	TVK	10/20/07 8:47	
Total Organic Halogens (TOX)	0.020 mg/l	0.010	IJ73141	EPA 9020	SAI	10/31/07 16:54	
Chloride	25 mg/l	10	IJ72228	USGS I-1184-85	DRB	10/22/07 14:22	
Chemical Oxygen Demand	<10 mg/l	10	IJ71829	EPA 410.4	SAA	10/19/07 7:20	
Nitrogen, Ammonia	<1.0 mg/l	1.0	IJ71805	SM 4500-NH3 F	SAA	10/18/07 14:56	
Phenols, total	<0.100 mg/l	0.100	IJ72910	EPA 9065	JAC	10/29/07 16:54	
Iron, dissolved	<0.030 mg/l	0.030	IJ71913	EPA 6010B	LAR	10/19/07 14:57	
17J0812-05 MW-92-4				Matrix: Water		Collected:	10/16/07 11:40
Trichloroethylene	<1.0 ug/l	1.0	IJ72222	EPA 8260B	TVK	10/20/07 9:25	
Surrogate: Dibromofluoromethane	108 %			60-140	TVK	10/20/07 9:25	
Surrogate: 1,2-Dichloroethane-d4	104 %			69-133	TVK	10/20/07 9:25	
Surrogate: Toluene-d8	109 %			76-122	TVK	10/20/07 9:25	
Surrogate: 4-Bromofluorobenzene	100 %			74-126	TVK	10/20/07 9:25	
Total Organic Halogens (TOX)	<0.010 mg/l	0.010	IJ73140	EPA 9020	SAI	10/31/07 16:48	
Chloride	61 mg/l	10	IJ72228	USGS I-1184-85	DRB	10/22/07 14:22	
Chemical Oxygen Demand	<10 mg/l	10	IJ71829	EPA 410.4	SAA	10/19/07 7:20	
Nitrogen, Ammonia	<1.0 mg/l	1.0	IJ71805	SM 4500-NH3 F	SAA	10/18/07 14:56	
Phenols, total	<0.100 mg/l	0.100	IJ72910	EPA 9065	JAC	10/29/07 16:54	
Iron, dissolved	<0.030 mg/l	0.030	IJ71913	EPA 6010B	LAR	10/19/07 15:01	
17J0812-06 MW-92-5				Matrix: Water		Collected:	10/16/07 12:45
Trichloroethylene	<1.0 ug/l	1.0	IJ72222	EPA 8260B	TVK	10/20/07 10:03	
Surrogate: Dibromofluoromethane	110 %			60-140	TVK	10/20/07 10:03	
Surrogate: 1,2-Dichloroethane-d4	104 %			69-133	TVK	10/20/07 10:03	
Surrogate: Toluene-d8	110 %			76-122	TVK	10/20/07 10:03	
Surrogate: 4-Bromofluorobenzene	100 %			74-126	TVK	10/20/07 10:03	
Total Organic Halogens (TOX)	0.014 mg/l	0.010	IJ73141	EPA 9020	SAI	10/31/07 16:54	

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Work Order: 17J0812

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
17J0812-06	MW-92-5			Matrix: Water		Collected:	10/16/07 12:45
Chloride	54 mg/l	10	1J72228	USGS I-1184-85	DRB	10/22/07 14:22	
Chemical Oxygen Demand	<10 mg/l	10	1J71829	EPA 410.4	SAA	10/19/07 7:20	
Nitrogen, Ammonia	<1.0 mg/l	1.0	1J71805	SM 4500-NH3 F	SAA	10/18/07 14:56	
Phenols, total	<0.100 mg/l	0.100	1J72910	EPA 9065	JAC	10/29/07 16:54	
Iron, dissolved	0.164 mg/l	0.100	1J72304	EPA 6010B	RVV	10/24/07 13:24	
17J0812-07	MW-92-6			Matrix: Water		Collected:	10/16/07 09:35
Trichloroethylene	<1.0 ug/l	1.0	1J72222	EPA 8260B	TVK	10/20/07 10:41	
<i>Surrogate: Dibromoformmethane</i>	<i>108 %</i>			<i>60-140</i>	TVK	10/20/07 10:41	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>102 %</i>			<i>69-133</i>	TVK	10/20/07 10:41	
<i>Surrogate: Toluene-d8</i>	<i>107 %</i>			<i>76-122</i>	TVK	10/20/07 10:41	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>99.1 %</i>			<i>74-126</i>	TVK	10/20/07 10:41	
Total Organic Halogens (TOX)	<0.010 mg/l	0.010	1J73140	EPA 9020	SAI	10/31/07 16:48	
Chloride	110 mg/l	10	1J72228	USGS I-1184-85	DRB	10/22/07 14:22	
Chemical Oxygen Demand	<10 mg/l	10	1J72210	EPA 410.4	SAA	10/22/07 15:16	
Nitrogen, Ammonia	<1.0 mg/l	1.0	1J71805	SM 4500-NH3 F	SAA	10/18/07 14:56	
Phenols, total	<0.100 mg/l	0.100	1J72910	EPA 9065	JAC	10/29/07 16:54	
Iron, dissolved	0.140 mg/l	0.100	1J72304	EPA 6010B	RVV	10/24/07 13:36	
17J0812-08	MW-92-7			Matrix: Water		Collected:	10/16/07 10:35
Trichloroethylene	<1.0 ug/l	1.0	1J72222	EPA 8260B	TVK	10/20/07 11:19	
<i>Surrogate: Dibromoformmethane</i>	<i>107 %</i>			<i>60-140</i>	TVK	10/20/07 11:19	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>102 %</i>			<i>69-133</i>	TVK	10/20/07 11:19	
<i>Surrogate: Toluene-d8</i>	<i>107 %</i>			<i>76-122</i>	TVK	10/20/07 11:19	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>101 %</i>			<i>74-126</i>	TVK	10/20/07 11:19	
Total Organic Halogens (TOX)	0.019 mg/l	0.010	1J73141	EPA 9020	SAI	10/31/07 16:54	
Chloride	61 mg/l	10	1J72303	USGS I-1184-85	DRB	10/23/07 8:29	
Chemical Oxygen Demand	<10 mg/l	10	1J72210	EPA 410.4	SAA	10/22/07 15:16	
Nitrogen, Ammonia	<1.0 mg/l	1.0	1J71805	SM 4500-NH3 F	SAA	10/18/07 14:56	
Phenols, total	<0.100 mg/l	0.100	1J72910	EPA 9065	JAC	10/29/07 16:54	
Iron, dissolved	0.582 mg/l	0.100	1J72304	EPA 6010B	RVV	10/24/07 13:40	
17J0812-09	SW-1			Matrix: Water		Collected:	10/16/07 15:05
Trichloroethylene	<1.0 ug/l	1.0	1J72222	EPA 8260B	TVK	10/20/07 11:57	
<i>Surrogate: Dibromoformmethane</i>	<i>108 %</i>			<i>60-140</i>	TVK	10/20/07 11:57	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>102 %</i>			<i>69-133</i>	TVK	10/20/07 11:57	
<i>Surrogate: Toluene-d8</i>	<i>109 %</i>			<i>76-122</i>	TVK	10/20/07 11:57	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>101 %</i>			<i>74-126</i>	TVK	10/20/07 11:57	
Total Organic Halogens (TOX)	0.014 mg/l	0.010	1J73141	EPA 9020	SAI	10/31/07 16:54	
Chloride	43 mg/l	10	1J72303	USGS I-1184-85	DRB	10/23/07 8:29	
Chemical Oxygen Demand	<10 mg/l	10	1J72210	EPA 410.4	SAA	10/22/07 15:16	
Nitrogen, Ammonia	<1.0 mg/l	1.0	1J71805	SM 4500-NH3 F	SAA	10/18/07 14:56	

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Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
17J0812-09 SW-1				Matrix:Water		Collected:	10/16/07 15:05
Phenols, total	<0.100 mg/l	0.100	1J72910	EPA 9065	JAC	10/29/07 16:54	
Iron, dissolved	0.105 mg/l	0.100	1J72304	EPA 6010B	RVV	10/24/07 13:44	
17J0812-10 Duplicate				Matrix:Water		Collected:	10/16/07 00:00
Trichloroethylene	<1.0 ug/l	1.0	1J72222	EPA 8260B	TVK	10/20/07 12:36	
Surrogate: Dibromofluoromethane	108 %			60-140	TVK	10/20/07 12:36	
Surrogate: 1,2-Dichloroethane-d4	104 %			69-133	TVK	10/20/07 12:36	
Surrogate: Toluene-d8	109 %			76-122	TVK	10/20/07 12:36	
Surrogate: 4-Bromofluorobenzene	99.3 %			74-126	TVK	10/20/07 12:36	
Total Organic Halogens (TOX)	<0.010 mg/l	0.010	1J73140	EPA 9020	SAI	10/31/07 16:48	
Chloride	55 mg/l	10	1J72303	USGS I-1184-85	DRB	10/23/07 8:29	
Chemical Oxygen Demand	<10 mg/l	10	1J72210	EPA 410.4	SAA	10/22/07 15:16	
Nitrogen, Ammonia	<1.0 mg/l	1.0	1J71805	SM 4500-NH3 F	SAA	10/18/07 14:56	
Phenols, total	<0.100 mg/l	0.100	1J72910	EPA 9065	JAC	10/29/07 16:54	
Iron, dissolved	0.147 mg/l	0.100	1J72304	EPA 6010B	RVV	10/24/07 13:48	

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Determination of Volatile Organic Compounds - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 17J2217 - 1J72222

Calibration Check (17J2217-CCV1)

Prepared & Analyzed: 10/19/07

Surrogate: Dibromofluoromethane	51.4	ug/l	50.0000		103	80-120
Surrogate: 1,2-Dichloroethane-d4	51.6	"	50.0000		103	80-120
Surrogate: Toluene-d8	50.4	"	50.0000		101	80-120
Surrogate: 4-Bromofluorobenzene	50.6	"	50.0000		101	80-120
Trichloroethylene	52.18	"	50.0000		104	80-120

Calibration Check (17J2217-CCV2)

Prepared: 10/19/07 Analyzed: 10/20/07

Surrogate: Dibromofluoromethane	52.0	ug/l	50.0000		104	80-120
Surrogate: 1,2-Dichloroethane-d4	51.6	"	50.0000		103	80-120
Surrogate: Toluene-d8	51.4	"	50.0000		103	80-120
Surrogate: 4-Bromofluorobenzene	50.1	"	50.0000		100	80-120
Trichloroethylene	53.29	"	50.0000		107	80-120

Batch 1J72222 - EPA 5030B

Blank (1J72222-BLK1)

Prepared & Analyzed: 10/19/07

Surrogate: Dibromofluoromethane	54.1	ug/l	50.0000		108	60-140
Surrogate: 1,2-Dichloroethane-d4	50.8	"	50.0000		102	69-133
Surrogate: Toluene-d8	53.0	"	50.0000		106	76-122
Surrogate: 4-Bromofluorobenzene	51.0	"	50.0000		102	74-126
Trichloroethylene	ND	1.0	"			

LCS (1J72222-BS1)

Prepared & Analyzed: 10/19/07

Surrogate: Dibromofluoromethane	51.7	ug/l	50.0000		103	60-140
Surrogate: 1,2-Dichloroethane-d4	51.9	"	50.0000		104	69-133
Surrogate: Toluene-d8	50.4	"	50.0000		101	76-122
Surrogate: 4-Bromofluorobenzene	50.4	"	50.0000		101	74-126
Trichloroethylene	58.71	1.0	"	50.0000	117	82-125

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1J72222 - EPA 5030B

Matrix Spike (1J72222-MS1) Source: 17J0781-01 Prepared & Analyzed: 10/19/07

Surrogate: Dibromofluoromethane	51.0	ug/l	50.0000		102	60-140			
Surrogate: 1,2-Dichloroethane-d4	50.6	"	50.0000		101	69-133			
Surrogate: Toluene-d8	51.4	"	50.0000		103	76-122			
Surrogate: 4-Bromofluorobenzene	49.5	"	50.0000		99.0	74-126			
Trichloroethylene	1119	20.0	"	1000.00	ND	112	82-125		

Matrix Spike Dup (1J72222-MSD1) Source: 17J0781-01 Prepared & Analyzed: 10/19/07

Surrogate: Dibromofluoromethane	51.5	ug/l	50.0000		103	60-140			
Surrogate: 1,2-Dichloroethane-d4	50.9	"	50.0000		102	69-133			
Surrogate: Toluene-d8	51.7	"	50.0000		103	76-122			
Surrogate: 4-Bromofluorobenzene	49.9	"	50.0000		99.8	74-126			
Trichloroethylene	1006	20.0	"	1000.00	ND	101	82-125	10.6	17

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Determination of Conventional Chemistry Parameters - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 16K0811 - 1K60826

Cal Standard (16K0811-CAL1)					Prepared & Analyzed: 11/08/06					
Phenols, total	-0.0119		mg/l		0.00000					
Cal Standard (16K0811-CAL2)					Prepared & Analyzed: 11/08/06					
Phenols, total	0.0309		mg/l		0.0250000	124				
Cal Standard (16K0811-CAL3)					Prepared & Analyzed: 11/08/06					
Phenols, total	0.0936		mg/l		0.100000	93.6				
Cal Standard (16K0811-CAL4)					Prepared & Analyzed: 11/08/06					
Phenols, total	0.413		mg/l		0.400000	103				
Cal Standard (16K0811-CAL5)					Prepared & Analyzed: 11/08/06					
Phenols, total	1.00		mg/l		1.00000	100				
Cal Standard (16K0811-CAL6)					Prepared & Analyzed: 11/08/06					
Phenols, total	2.00		mg/l		2.00000	99.8				
Calibration Check (16K0811-CCV1)					Prepared & Analyzed: 11/08/06					
Phenols, total	0.110		mg/l		0.100300	110	80-120			

Batch 17A1613 - 1A71617

Cal Standard (17A1613-CAL1)					Prepared & Analyzed: 01/16/07					
Chemical Oxygen Demand	-2.35		mg/l		0.00000					
Cal Standard (17A1613-CAL2)					Prepared & Analyzed: 01/16/07					
Chemical Oxygen Demand	12.3		mg/l		10.0000	123				

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 17A1613 - 1A71617

Cal Standard (17A1613-CAL3)					Prepared & Analyzed: 01/16/07					
Chemical Oxygen Demand	21.9		mg/l	20.0000		110				
Cal Standard (17A1613-CAL4)					Prepared & Analyzed: 01/16/07					
Chemical Oxygen Demand	74.0		mg/l	75.0000		98.6				
Cal Standard (17A1613-CAL5)					Prepared & Analyzed: 01/16/07					
Chemical Oxygen Demand	97.6		mg/l	100.000		97.6				
Cal Standard (17A1613-CAL6)					Prepared & Analyzed: 01/16/07					
Chemical Oxygen Demand	152		mg/l	150.000		101				

Batch 17J1801 - 1J71805

Calibration Check (17J1801-CCV1)					Prepared & Analyzed: 10/18/07					
Nitrogen, Ammonia	4.99		mg/l	5.00000		99.8	80-120			
Calibration Check (17J1801-CCV2)					Prepared & Analyzed: 10/18/07					
Nitrogen, Ammonia	5.44		mg/l	5.00000		109	80-120			
Calibration Check (17J1801-CCV3)					Prepared & Analyzed: 10/18/07					
Nitrogen, Ammonia	4.99		mg/l	5.00000		99.8	80-120			
Calibration Check (17J1801-CCV4)					Prepared & Analyzed: 10/18/07					
Nitrogen, Ammonia	5.33		mg/l	5.00000		107	80-120			
Calibration Check (17J1801-CCV5)					Prepared & Analyzed: 10/18/07					
Nitrogen, Ammonia	5.24		mg/l	5.00000		105	80-120			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 17J1801 - 1J71805

Calibration Check (17J1801-CCV6)					Prepared & Analyzed: 10/18/07					
Nitrogen, Ammonia	5.31		mg/l	5.00000		106	80-120			
Calibration Check (17J1801-CCV7)					Prepared & Analyzed: 10/18/07					
Nitrogen, Ammonia	5.29		mg/l	5.00000		106	80-120			
Calibration Check (17J1801-CCV8)					Prepared & Analyzed: 10/18/07					
Nitrogen, Ammonia	5.33		mg/l	5.00000		107	80-120			
Initial Cal Check (17J1801-ICV1)					Prepared & Analyzed: 10/18/07					
Nitrogen, Ammonia	5.36		mg/l	5.00000		107	80-120			

Batch 17J1828 - 1J71829

Calibration Check (17J1828-CCV1)					Prepared: 10/18/07	Analyzed: 10/19/07				
Chemical Oxygen Demand	76.5		mg/kg	75.0000		102	90-110			
Calibration Check (17J1828-CCV2)					Prepared: 10/18/07	Analyzed: 10/19/07				
Chemical Oxygen Demand	74.0		mg/kg	75.0000		98.6	90-110			

Batch 17J2205 - 1J72211

Calibration Check (17J2205-CCV1)					Prepared & Analyzed: 10/22/07					
Chemical Oxygen Demand	77.8		mg/l	75.0000		104	90-110			
Calibration Check (17J2205-CCV2)					Prepared & Analyzed: 10/22/07					
Chemical Oxygen Demand	74.6		mg/l	75.0000		99.5	90-110			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 17J2205 - 1J72211

Calibration Check (17J2205-CCV3)	Prepared & Analyzed: 10/22/07					
Chemical Oxygen Demand	74.0		mg/l	75.0000	98.6	90-110

Calibration Check (17J2205-CCV4)

Calibration Check (17J2205-CCV4)	Prepared & Analyzed: 10/22/07					
Chemical Oxygen Demand	73.6		mg/l	75.0000	98.2	90-110

Batch 17J2918 - 1J72910

Calibration Check (17J2918-CCV1)	Prepared & Analyzed: 10/29/07					
Phenols, total	0.103		mg/l	0.100300	103	80-120

Initial Cal Blank (17J2918-ICB1)

Initial Cal Blank (17J2918-ICB1)	Prepared & Analyzed: 10/29/07					
Phenols, total	-0.0119		mg/l			

Initial Cal Check (17J2918-ICV1)

Initial Cal Check (17J2918-ICV1)	Prepared & Analyzed: 10/29/07					
Phenols, total	0.103		mg/l	0.100300	103	80-120

Batch 1J71805 - Wet Chem Preparation

Blank (1J71805-BLK1)	Prepared & Analyzed: 10/18/07					
Nitrogen, Ammonia	ND	1.0	mg/l			

Matrix Spike (1J71805-MS1)	Source: 17J0812-10	Prepared & Analyzed: 10/18/07				
Nitrogen, Ammonia	5.31	1.0	mg/l	5.00000	ND	106

Matrix Spike Dup (1J71805-MSD1)	Source: 17J0812-10	Prepared & Analyzed: 10/18/07				
Nitrogen, Ammonia	5.03	1.0	mg/l	5.00000	ND	101

64-129 5.42 12

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1J71829 - Wet Chem Preparation

Blank (1J71829-BLK1) Prepared: 10/18/07 Analyzed: 10/19/07

Chemical Oxygen Demand ND 10 mg/l

LCS (1J71829-BS1) Prepared: 10/18/07 Analyzed: 10/19/07

Chemical Oxygen Demand 73.6 10 mg/l 75.0000 98.2 78-117

Matrix Spike (1J71829-MS1) Source: 17J0812-06 Prepared: 10/18/07 Analyzed: 10/19/07

Chemical Oxygen Demand 45.1 10 mg/l 42.8571 ND 105 60-139

Matrix Spike Dup (1J71829-MSD1) Source: 17J0812-06 Prepared: 10/18/07 Analyzed: 10/19/07

Chemical Oxygen Demand 42.2 10 mg/l 42.8571 ND 98.5 60-139 6.69 26

Batch 1J72210 - Wet Chem Preparation

Blank (1J72210-BLK1) Prepared & Analyzed: 10/22/07

Chemical Oxygen Demand ND 10 mg/l

LCS (1J72210-BS1) Prepared & Analyzed: 10/22/07

Chemical Oxygen Demand 75.9 10 mg/l 75.0000 101 78-117

Matrix Spike (1J72210-MS1) Source: 17J0985-09 Prepared & Analyzed: 10/22/07

Chemical Oxygen Demand 49.5 10 mg/l 42.8571 5.95 102 60-139

Matrix Spike Dup (1J72210-MSD1) Source: 17J0985-09 Prepared & Analyzed: 10/22/07

Chemical Oxygen Demand 50.2 10 mg/l 42.8571 5.95 103 60-139 1.46 26

Batch 1J72228 - Wet Chem Preparation

Blank (1J72228-BLK1) Prepared & Analyzed: 10/22/07

Chloride ND 10 mg/l

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Work Order: 17J0812

Determination of Conventional Chemistry Parameters - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD Limit	Notes
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Batch 1J72228 - Wet Chem Preparation

Matrix Spike (1J72228-MS1)	Source: 17J0738-02			Prepared & Analyzed: 10/22/07				
Chloride	77.2	10	mg/l	50.0000	29.3	95.8	75-116	
Matrix Spike Dup (1J72228-MSD1)	Source: 17J0738-02			Prepared & Analyzed: 10/22/07				
Chloride	77.2	10	mg/l	50.0000	29.3	95.8	75-116	0.00 10
Reference (1J72228-SRM1)				Prepared & Analyzed: 10/22/07				
Chloride	21.0	10	mg/l	20.0000		105	90-110	

Batch 1J72303 - Wet Chem Preparation

Blank (1J72303-BLK1)						Prepared & Analyzed: 10/23/07		
Chloride	ND	10	mg/l					
Matrix Spike (1J72303-MS1)	Source: 17J0984-03			Prepared & Analyzed: 10/23/07				
Chloride	58.2	10	mg/l	25.0000	36.2	88.0	75-116	
Matrix Spike Dup (1J72303-MSD1)	Source: 17J0984-03			Prepared & Analyzed: 10/23/07				
Chloride	58.7	10	mg/l	25.0000	36.2	90.0	75-116	0.855 10
Reference (1J72303-SRM1)						Prepared & Analyzed: 10/23/07		
Chloride	21.0	10	mg/l	20.0000		105	90-110	

Batch 1J72910 - Wet Chem Preparation

Blank (1J72910-BLK1)						Prepared & Analyzed: 10/29/07		
Phenols, total	ND	0.100	mg/l					

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Work Order: 17J0812

Determination of Conventional Chemistry Parameters - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch 1J72910 - Wet Chem Preparation

LCS (1J72910-BS1)					Prepared & Analyzed: 10/29/07					
Phenols, total	0.0903	0.100	mg/l	0.100300		90.0	60-125			
Duplicate (1J72910-DUP1)		Source: 17J0812-02			Prepared & Analyzed: 10/29/07					
Phenols, total	ND	0.100	mg/l		ND					20

Matrix Spike (1J72910-MS1)		Source: 17J0738-05			Prepared & Analyzed: 10/29/07					
Phenols, total	0.0936	0.100	mg/l	0.100300	ND	93.3	60-140			

Batch 1J73140 - TOX/TX/EOX

Blank (1J73140-BLK1)					Prepared & Analyzed: 10/31/07					
Total Organic Halogens (TOX)	ND	0.010	mg/l							
LCS (1J73140-BS1)					Prepared & Analyzed: 10/31/07					
Total Organic Halogens (TOX)	0.0918	0.010	mg/l	0.103000		89.1	73-126			

Reference (1J73140-SRM1)					Prepared & Analyzed: 10/31/07					
Total Organic Halogens (TOX)	0.0989	0.010	mg/l	0.103000		96.0	90-110			

Batch 1J73141 - TOX/TX/EOX

Blank (1J73141-BLK1)					Prepared & Analyzed: 10/31/07					
Total Organic Halogens (TOX)	ND	0.010	mg/l							
LCS (1J73141-BS1)					Prepared & Analyzed: 10/31/07					

Total Organic Halogens (TOX)	0.0982	0.010	mg/l	0.103000		95.3	73-126			
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Work Order: 17J0812

Determination of Conventional Chemistry Parameters - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD Limit	Notes
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Batch 1J73141 - TOX/TX/EOX

Reference (1J73141-SRM1) Prepared & Analyzed: 10/31/07
Total Organic Halogens (TOX) 0.1026 0.010 mg/l 0.103000 99.7 90-110

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Work Order: 17J0812

Determination of Dissolved Metals - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 17J1905 - 1J71913										
Calibration Blank (17J1905-CCB1)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	0.00360		mg/l		0.00000					
Calibration Blank (17J1905-CCB2)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	-0.00120		mg/l		0.00000					
Calibration Blank (17J1905-CCB3)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	-0.00230		mg/l		0.00000					
Calibration Blank (17J1905-CCB4)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	-0.00320		mg/l		0.00000					
Calibration Blank (17J1905-CCB5)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	-0.00270		mg/l		0.00000					
Calibration Blank (17J1905-CCB6)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	0.00250		mg/l		0.00000					
Calibration Check (17J1905-CCV1)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	6.52		mg/l		6.00000	109	90-110			
Calibration Check (17J1905-CCV2)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	6.54		mg/l		6.00000	109	90-110			
Calibration Check (17J1905-CCV3)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	6.40		mg/l		6.00000	107	90-110			
Calibration Check (17J1905-CCV4)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	6.29		mg/l		6.00000	105	90-110			

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Determination of Dissolved Metals - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 17J1905 - 1J71913

Calibration Check (17J1905-CCV5)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	6.33		mg/l	6.00000		106	90-110			
Calibration Check (17J1905-CCV6)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	6.21		mg/l	6.00000		104	90-110			
Low Cal Check (17J1905-LCV1)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	0.0348		mg/l	0.0300000		116	70-130			
Secondary Cal Check (17J1905-SCV2)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	1.03		mg/l	1.00000		103	90-110			

Batch 17J2404 - 1J72304

Calibration Blank (17J2404-CCB1)					Prepared & Analyzed: 10/24/07					
Iron, dissolved	0.00270		mg/l	0.00000						
Calibration Blank (17J2404-CCB2)					Prepared & Analyzed: 10/24/07					
Iron, dissolved	0.00570		mg/l	0.00000						
Calibration Blank (17J2404-CCB3)					Prepared & Analyzed: 10/24/07					
Iron, dissolved	-0.0100		mg/l	0.00000						
Calibration Check (17J2404-CCV1)					Prepared & Analyzed: 10/24/07					
Iron, dissolved	21.5		mg/l	21.0000		102	90-110			
Calibration Check (17J2404-CCV2)					Prepared & Analyzed: 10/24/07					
Iron, dissolved	21.4		mg/l	21.0000		102	90-110			

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Determination of Dissolved Metals - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch 17J2404 - 1J72304

Calibration Check (17J2404-CCV3)					Prepared & Analyzed: 10/24/07					
Iron, dissolved	21.1		mg/l	21.0000		100	90-110			
High Cal Check (17J2404-HCV2)					Prepared & Analyzed: 10/24/07					
Iron, dissolved	21.5		mg/l	20.0000		108	90-110			
Initial Cal Blank (17J2404-ICB1)					Prepared & Analyzed: 10/24/07					
Iron, dissolved	0.0158		mg/l	0.00000						
Initial Cal Check (17J2404-ICV1)					Prepared & Analyzed: 10/24/07					
Iron, dissolved	21.7		mg/l	21.0000		103	90-110			
Secondary Cal Check (17J2404-SCV1)					Prepared & Analyzed: 10/24/07					
Iron, dissolved	2.64		mg/l	2.50000		106	90-110			

Batch 1J71913 - Dissolved Metal Prep

Blank (1J71913-BLK1)					Prepared & Analyzed: 10/19/07					
Iron, dissolved	ND	0.030	mg/l							
Matrix Spike (1J71913-MS1)		Source: 17J0737-05			Prepared & Analyzed: 10/19/07					
Iron, dissolved	4.12	0.030	mg/l	4.00000	0.0119	103	79-135			
Matrix Spike Dup (1J71913-MSD1)		Source: 17J0737-05			Prepared & Analyzed: 10/19/07					
Iron, dissolved	4.20	0.030	mg/l	4.00000	0.0119	105	79-135	1.99	11	

Batch 1J72304 - Dissolved Metal Prep

Blank (1J72304-BLK1)					Prepared: 10/23/07 Analyzed: 10/24/07					
Iron, dissolved	ND	0.100	mg/l							

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Determination of Dissolved Metals - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD Limit	Notes
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Batch 1J72304 - Dissolved Metal Prep

Matrix Spike (1J72304-MS1)	Source: 17J0812-06	Prepared: 10/23/07	Analyzed: 10/24/07
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Iron, dissolved	0.382	0.100 mg/l	0.200000	0.164	109	79-135
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Matrix Spike Dup (1J72304-MSD1)	Source: 17J0812-06	Prepared: 10/23/07	Analyzed: 10/24/07
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Iron, dissolved	0.376	0.100 mg/l	0.200000	0.164	106	79-135	1.64	11
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ND = Non Detect; REC= Recovery; RPD= Relative Percent Difference

Certified Analyses included in this Report

Method/Matrix	Analyte	Certifications
EPA 410.4 in Water	Chemical Oxygen Demand	IA-NT,KS-NT,NELAC
EPA 6010B in Water	Iron, dissolved	IA-NT,KS-NT,NELAC
EPA 8260B in Water	Trichloroethylene	IA-NT,KS-NT,NELAC
EPA 9020 in Water	Total Organic Halogens (TOX)	IA-NT,NELAC
EPA 9065 in Water	Phenols, total	IA-NT,KS-NT,NELAC
SM 4500-NH3 F in Water	Nitrogen, Ammonia	IA-NT
USGS I-1184-85 in Water	Chloride	IA-NT

Code	Description	Number	Expires
IA-NT	Iowa Department of Natural Resources	095	02/01/2008
KS-NT	Kansas Department of Health and Environment	E-10287	07/31/2008
NELAC	New Jersey Department of Environmental Protection	IA001	06/30/2008

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End of Report



Keystone Laboratories, Inc.

Sue Thompson
Project Manager I

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CHAIN OF CUSTODY RECORD

Keystone
LABORATORIES, INC.

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 Newton, IA 50208 Waterloo, IA 50701
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www.keystonelabs.com
- 1155 Adams, Suite 120
 Kansas City, KS 66103
 Phone: 913-321-7856
 Fax: 913-321-7937

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PRINT OR TYPE INFORMATION BELOW
 SAMPLER: Wayne Shannon
 SITE NAME: Concrete Supply
 ADDRESS: 1108 SE 30th ST
 CITY/ST/ZIP: Des Moines
 PHONE: _____
 FAX: _____

REPORT TO:
 NAME: Chandra Shelkar
 COMPANY NAME: Shelkar Engineering
 ADDRESS: P.O. Box 3625
 CITY/ST/ZIP: Des Moines
 PHONE: 334-5062
 FAX: _____

BILL TO:
 NAME: Sime
 COMPANY NAME: _____
 ADDRESS: _____
 CITY/ST/ZIP: _____
 PHONE: _____
 Keystone Quote No.: _____
 (If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED			LAB USE ONLY		
							Landf. II	Landf. II	Trichloroethylene	LABORATORY WORK ORDER NO.	SAMPLE TEMPERATURE UPON RECEIPT:	LABORATORY SAMPLE NUMBER
MW-92-1	16/07	15:50		8	H ₂ O/G	X X X				1730812	°C	
MW-92-1R		14:30		1								02
MW-92-2		16:45		1								03
MW-92-3		13:35		1								04
MW-92-4		11:40		1								05
MW-92-5		12:45		1								06
MW-92-6		9:35		1								07
MW-92-7		10:35		1								08
SW-1		15:05		1								09
Duplicate		—		1								10

Relinquished by: (Signature) <i>Wayne J.</i>	Date Time	Received by: (Signature)	Date Time	Turn-Around: <input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush _____
Relinquished by: (Signature) <i>Patty J. Banchard</i>	Date Time	Received for Lab by: (Signature) <i>Patty J. Banchard</i>	Date Time	Remarks: 10-16-07 6:45 pm	Contact Lab Prior to Submission

DATE 12/02/07 TIME 02:03PM
SERIAL NUMBER UTV183062E
C13 TOTAL MARKED IMAGES 90 START 11692
TOTAL STAPLES USED 0 FINISH 11782
TOTAL PAGES HOLE PUNCHED 0

SIZE QTY SINGLE SIDED COPIES QTY DOUBLE SIDED COPIES
8.5 X 11 90

TYPE	QTY PER TYPE	COLOR	QTY PER COLOR
PLAIN	90	WHITE	90
DRILLED	0	BLUE	0
TRANSPARENCY	0	YELLOW	0
LETTERHEAD	0	GREEN	0
HEAVYWEIGHT	0	PINK	0
RECYCLED	0	CLEAR	0
BOND	0	IVORY	0
LABELS	0	GRAY	0
PREPRINTED	0	BUFF	0
TABS	0	GOLDENROD	0
ENVELOPES	0	RED	0
CUSTOM1	0	ORANGE	0
CUSTOM2	0	CUSTOM1	0
CUSTOM3	0	CUSTOM2	0
CUSTOM4	0	CUSTOM3	0
CUSTOM5	0	CUSTOM4	0
CUSTOM6	0	CUSTOM5	0
CUSTOM7	0	CUSTOM6	0
OTHER	0	CUSTOM7	0
		OTHER	0

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